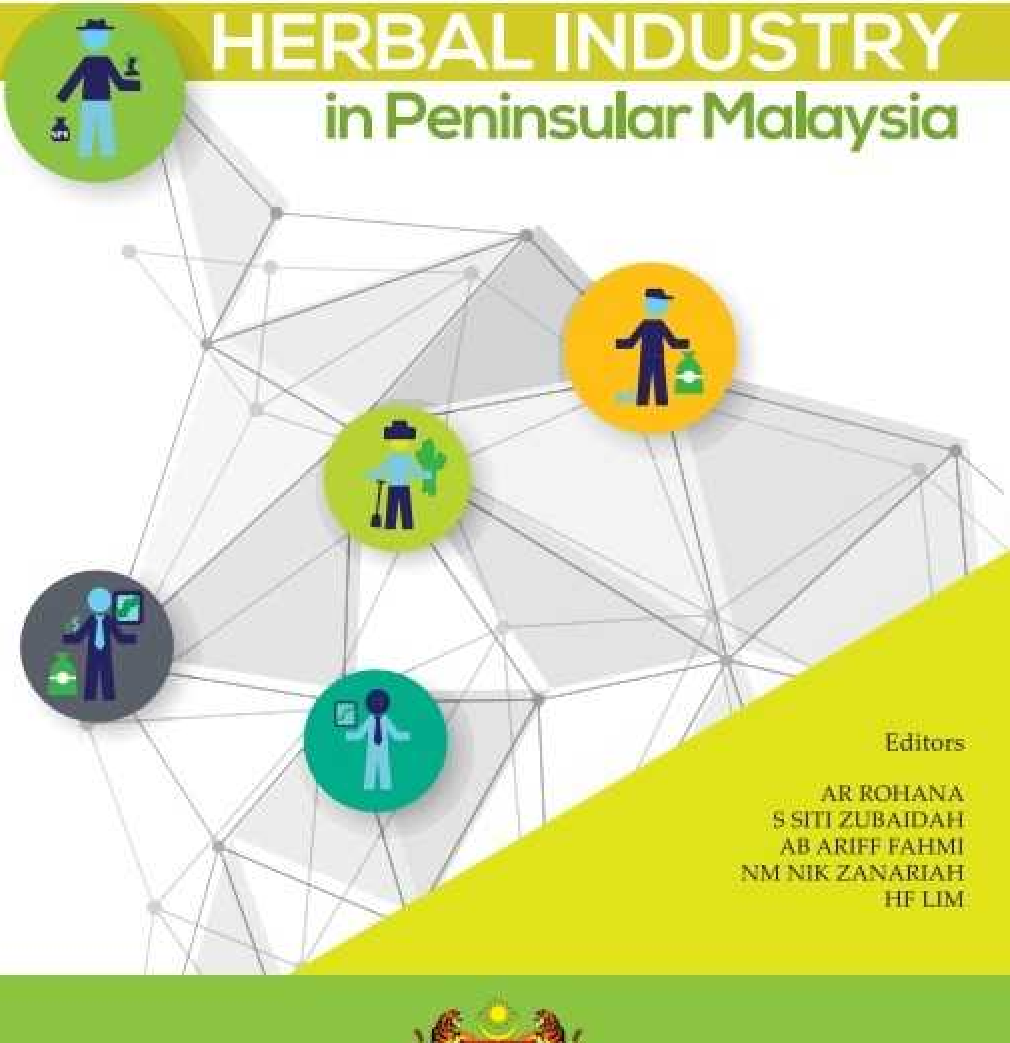
Socio-economic Background of HERBAL INDUSTRY in Peninsular Malaysia



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Peria katak
Momordica charantia

FOREWORD

As one of the 17 mega diverse countries in the world, Malaysia's biodiversity has very high potential value for the herbal industry. The herbal industry is one of the economic drivers that could potentially make a significant contribution to the economic growth of Malaysia to achieve the status of a developed country by the year 2020 under the Economic Transformation Programme (ETP). Herbs are included in the first Entry Point Project (EPP1) for the nation's Agriculture National Key Economic Area (NKEA).

To further develop the herbal industry, studies related to the industry value chain are crucial to understand the current status and structure of Malaysian herbal industry. The value chain players of the industry consist of planting material suppliers, herbal cultivators, herbal product producers, wholesalers, retailers and consumers. Two earlier studies on the value chain were conducted by FRIM, namely Survey on Herbal Cultivators in 2011–2012 and Study on Consumers' Preferences in 2013.

The early initiatives undertaken by FRIM attracted the interest of Herbal Development Office (HDO), Ministry of Agriculture and Agro–Based Industry (MOA). The Agriculture NKEA Steering Committee Meeting (SC-NKEA) No.4/2014 approved an allocation of RM1.961 million under a special NKEA Research Grant Scheme

(NRGS) project to complete the herbal value chain study between 2014 and 2016.

The most important output of this study is the online system (i.e. Sistem Rantaian Industri Herba–SRI Herba) which is a useful reference for the development of herbal industry in Malaysia. SRI Herba is an integrated and interactive online system with comprehensive information related to the herbal industry in Peninsular Malaysia. At the same time, it creates a platform to link the various stakeholders.

The study team has published six books in 2015–2017, namely, *Directory of Herbal Cultivators in Peninsular Malaysia* (2015), *Travelog: Catatan Kembara ReNIH* (2015), *Consumer Preferences on Herbs and Herbal Products in Peninsular Malaysia: Facts and Figures* (2016), *Direktori Pengusaha Produk Herba di Semenanjung Malaysia* (2017), *Direktori Pemborong Herba di Semenanjung Malaysia* (2017) and *Direktori Peruncit Herba di Semenanjung Malaysia* (2017).

Another remarkable achievement of the project was the organization of the Herbal Industry Conference 2015 (Persidangan Industri Herba 2015–PIH2015) on 3–5 November 2015 which successfully brought together hundreds of researchers, entrepreneurs, cultivators, government agencies and visitors. This event was highlighted in various social and mass media.

The signing of an agreement with an herbal company for the production of herbal products is another important milestone of the 2014–2016 study. Additionally, the study team also acts as FRIM ambassador for its R&D on herbs and herbal products to enhance networking, raise public awareness on the importance of herbs and encourage development of the herbal industry through engagement with stakeholders. Outputs and findings of the project were also used as references in developing programmes, incentives and policies. The National Herbal Implementation Committee Meeting suggested that the study be expanded to Sabah and Sarawak to get a complete portrait of herbal industry in Malaysia. Therefore, we trust that FRIM will continue its role in developing the herbal industry in Malaysia for future endeavors.

Dato' Dr Abd Latif Mohmod

Director General
Forest Research Institute Malaysia


Mahkota dewa
Phaleria macrocarpa

EXECUTIVE SUMMARY

To date, available information on the herbal industry in Malaysia is less streamlined and coordinated. There is a need for a database containing comprehensive information on the herbal industry in Malaysia. To meet this aspiration, studies on herbal industry value chain is important.

This book is written based on a study conducted from 2014 to 2016 with four main objectives: (1) To develop a database on the herbal chain players, (2) To identify the demand and supply of raw materials and products of herbal products, (3) To identify the gaps in the landscape of the herbal industry, and (4) To identify the issues and challenges in the herbal industry.

This study used two approaches, namely qualitative and quantitative, involving primary and secondary data collection. Secondary data on the list of registered herbal chain players was obtained from Department of Agriculture (DOA), Malaysia External Trade Development Corporation (MATRADE), Ministry of Science, Technology and Innovation Malaysia (MOSTI), SME Corp Malaysia, Federal Agricultural Marketing Authority (FAMA), National Pharmaceutical Regulatory Agency (NPRA), Farmers' Organization Authority (Lembaga Pertubuhan Peladang, LPP), Federal Land

Development Authority (FELDA), Halal Industry Development Corporation (HDC) and FRIM.

Based on the baseline information, an extensive survey using questionnaire was conducted from 2 September 2014 to 15 January 2015 to gather information on the distribution and status of the chain players in the herbal industry in Peninsular Malaysia. This extensive survey identified, and marked using GPS, a total of 6545 herbal industry players ranging 6200 to 6900 at 95% confidence. It includes five categories of player, namely planting material supplier (PMS), cultivator, producer, wholesaler and retailer in Peninsular Malaysia.

A detailed survey was subsequently conducted from 10 March till 31 July, 2015 using stratified sampling method to obtain detailed information from herbal chain players. Based on Michael Porter's value chain model (1985), three sets of questionnaire were used during the survey. In this detailed survey, a total of 679 players (10% sampling rate and stratified sampling) were interviewed.

The detailed survey showed the following important findings and implications.

(a) Even though the herbal industry has been developed for long time, it is still in infancy. This study showed that 83% of the herbal chain players operated after the new millennium. About

69% of the chain players had only 1–3 herbal staff while another 22% had 4–6 herbal staff. Besides, 95% of PMS and 71% of cultivators operated less than 1 ha. Most of the players were still using manual system/equipment indicating the need to enhance technological adoption to bring the industry to a higher level. Furthermore, 60% of chain players did not have proper storage. As high as 91% of product buyers were locals. There is lack of proper marketing strategies. The industry is highly dependent on marketing through existing network relationship. This limits the products to reach a wider range of customers.

(b) The number of herbal industry established increased by 219% during the Ninth Malaysia Plan (2006–2010) and Tenth Malaysia Plan (2011–2015) compared to the previous same period. It is parallel to the focus given by the government to increase the value added products of the herbal industry through the generation of new economic resources under the National Key Economic Areas (NKEA) which was introduced in 2010. This shows that the government plays the most important role in developing the industry.

(c) Sustainability of the raw materials for the industry is an issue needs to be properly handled by the policy makers. Tongkat ali and kacip fatimah were two key species in Malaysian herbal industry whose supply was still heavily dependent on the natural forest where the resources are depleting. Domestication of these species is important.

(d) Authentication of raw materials is crucial for future development as majority of planting material suppliers and cultivators did not know the origin of their planting materials and did not verify the species. Authentication and verification are basic requirements in producing high quality raw materials and products.

(e) Most of the chain players were Malays accounted for 88% of all players. The herbal industry needs to be further developed as this could help to narrow the economic gap between the Malays and non–Malays in the country.

(f) Of the total 672 chain players, 54% attained diploma or degree. The potential to further develop the industry will be facilitated as players were generally educated.

(g) Majority (93%) of workers in the herbal industry were locals, indicating that Malaysian workers are willing to get involved in the herbal industry and there is less need to depend on foreign workers.

(h) Producers were aware of the requirement for Good Manufacturing Practice as 63% were GMP certified.

The overall research findings point to the need to chart a new direction for the development of herbal industry in Malaysia. Gaps, issues and challenges identified have to be appropriately addressed and coordinated programmes implemented to enable the herbal industry entering the take–off stage (Rostow's third stage of economic growth model 1960). An immediate step to be taken is to prioritize the development strategies. The three most important strategies to further develop the herbal industry are strengthening R&D, enhancing capacity building and transferring technology. Other highlighted strategies are specializing products, forming/strengthening of special coordination committee, raising public awareness, extending advice on product registration license and certification, enhancing business operation and promoting products in social media. The overall suggestions point to the need to have **a one–stop centre** to provide and coordinate comprehensive and holistic information on the herbal industry.


Pegaga
Centella asiatica

ACKNOWLEDGEMENTS

The implementation of this study was made possible with a total funding of RM1.961 million through Herbal Development Office (HDO), Ministry of Agriculture and Agro-Based Industry (MOA).

The project was implemented smoothly with support and cooperation from MOA, Department of Agriculture (DOA), Malaysian Agricultural Research and Development Institute (MARDI), Institute for Medical Research Malaysia (IMR) and Universiti Putra Malaysia (UPM).

The DOA, MATRADE, MOSTI, SME Corp Malaysia, FAMA, NPRA, LPP, FELDA, HDC and FRIM were instrumental in providing the list of herbal chain players which served as a guidance to the survey conducted.

Our heartfelt thanks and appreciation also go to Dato' Dr Abd Latif Mohmod, Director General of Forest Research Institute Malaysia (FRIM) for his guidance and support.

We would like to express our gratitude to project coordinator, Dato' Dr Marzalina Mansor and project technical advisory members, namely Dr Jean Marc Roda, Mohd Shahidan Mohd Arshad, Rosdi Koter, Dr Pin Kar Yong and Dr Nor Azah Mohamad Ali for their invaluable information, knowledge, advice and guidance. Dr Hj Nur Supardi Md. Noor, FRIM's Research Planning Division director, has facilitated project implementation.

The "SRI Herba" on-line system was developed by Zahari Othman and Wan Zahiri Wan Yaacob of FRIM's ICT. Thanks to all research team members for carrying out various project activities and other FRIM staff for their direct and indirect assistance to enable the completion of this project.

Last but not least, we appreciate the cooperation of all herbal industry chain players in providing the required information.

LIST OF ABBREVIATIONS

CIRAD	French Agricultural Research Centre for International Development
DOA	Department of Agriculture
EPP	Entry Point Project
FAMA	Federal Agriculture Marketing Authority
FELCRA	Federal Land Consolidation and Rehabilitation Authority
FELDA	Federal Land Development Authority
FRIM	Forest Research Institute Malaysia
HTC	Herbal Technology Centre
GDP	Gross Domestic Product
GLC	Government-Linked Companies
GMP	Good Manufacturing Practices
GNI	Gross National Income
GPS	Geographical Positioning System
GST	Goods and Services Tax
HDC	Halal Industry Development Corporation
IARC	International Agency for Research on Cancer
IMR	Institute for Medical Research

IPHARM	Malaysian Institute of Pharmaceuticals and Nutraceuticals
KESEDAR	Southern Kelantan Development Authority
KETENGAH	Terengganu Tengah Development Authority
LKTN	National Kenaf and Tobacco Board
LPP	Farmers' Organization Authority
MARDI	Malaysian Agriculture Research and Development Institute
MATRADE	Malaysia External Trade Development Corporation
MDEC	Multimedia Development Corporation
MHC	Malaysian Herbal Corporation
MINT	Malaysian Institute for Nuclear Technology Research
MITI	Ministry of International Trade and Industry
MOA	Ministry of Agriculture and Agro-Based Industry
MOH	Ministry of Health
MOSTI	Ministry of Science, Technology and Innovation Malaysia
MPOB	Malaysian Palm Oil Board
MRRD	Ministry of Rural and Regional Development
MyIPO	Intellectual Property Corporation of Malaysia
NAP	National Agricultural Policy

NKEA	National Key Economic Areas
NPRA	National Pharmaceutical Regulatory Agency
NRE	Ministry of Natural Resources and Environment
NSTP	National Science and Technology Policy
PMS	Planting Material Supplier/s
R&D	Research and Development
RISDA	Rubber Industry Smallholders Development Authority
SIRIM	Standards and Industrial Research Institute of Malaysia
SRI Herba	Herbal Value Chain System
SSM	Companies Commission of Malaysia
TCM/ T&CM	Traditional and Complementary Medicine
TPM	Technology Park Malaysia
UKM	Universiti Kebangsaan Malaysia
UM	Universiti Malaya
UPM	Universiti Putra Malaysia
USA	United States of America
USM	Universiti Sains Malaysia
UTHM	Universiti Tun Hussein Onn
UTM	Universiti Teknologi Malaysia
WHO	World Health Organization

Roselle
Hibiscus sabdariffa

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in Peninsular Malaysia

This is a 'must read book' for herbal related policy makers, programme implementers, investors, researchers, industry players and those who are interested to know more about herbal industry in Peninsular Malaysia. From the study conducted on 6545 chain players in 2014–2016, this book highlights the herbal industry is still in infancy. Nevertheless, under Malaysia's Economic Transformation Programme (ETP), it has huge potential to contribute significantly to the economy. Faced with gaps, issues and challenges, the government needs to play a key role by providing various assistances to enable the industry entering "the take-off" stage in herbal industry development. The three most important strategies to further develop the herbal industry are strengthening R&D, enhancing capacity building and transferring technology. There is a need to have a **one–stop centre** to provide and coordinate comprehensive and holistic information on the herbal industry.

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