## SUSTAINABILITY OF KENAF DEVELOPMENT

### = MOVING FORWARD





**Editors**:

MOHD SHAHWAHID HAJI OTHMAN AMIRA MAS AYU AMIR MUSTAFA PARIDAH MD. TAHIR AHMAD AINUDDIN NURUDDIN FARAH MOHD SHAHWAHID NORFARYANTI KAMARUDDIN ABDUL RAHIM ABDUL SAMAD

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#### FOREWORD



#### PROF. DR. AZALI MOHAMED

#### DEAN, FACULTY OF ECONOMICS AND MANAGEMENT

#### **UNIVERSITI PUTRA MALAYSIA**

Kenaf is a new crop that has the potential to be an important raw material for processing into high value products that can generate export earning opportunities. Being a new industry, it needs intense research and development efforts both at the cultivation, fiber processing and product manufacturing. Kenaf products have high market potential to replace non-renewable product such as automotive components, building construction, furniture, aviation, pulp and paper among others.

This book covers a wide spectrum of topics from product developments, economics, social and environmental issues relevant to the Kenaf industry. The book has a chapter contributed by the joint authorship of the officers from the National Kenaf and Tobacco Board (NKTB) and researchers from Universiti Putra Malaysia (UPM) that provided the direction and challenges for the further development of the Kenaf industry.

It is my humble hope that this publication will serve as a useful future reference for the Kenaf farmers, industrial players, researchers and other individuals involved in Kenaf industry in Malaysia.

FOREWORD



### PROF. DR, PARIDAH BT MD TAHIR DIRECTOR, INSTITUTE OF TROPICAL FORESTRY AND FOREST PRODUCTS UNIVERSITI PUTRA MALAYSIA

Over the coming decades, the world will witness increased competition for limited and finite natural resources. The depletion of natural resources particularly petroleum, is transforming the world into a bioeconomy era as a response to key environmental challenges. A transition is needed towards an optimal use of renewable biological resources. We must move towards sustainable primary production and processing systems that can produce more food, fiber and other bio-based products with fewer inputs, less environmental impact and reduced greenhouse gas emissions. Malaysia is taking a challenge to develop kenaf as a substitute to non-renewable fibres. Kenaf has many advantages since it belongs to bast plants class where high-quality long fibres can be obtained and utilised for making various medium- and high-tech products. After almost ten years of supporting kenaf R&D, development and commercialisation, the government can now confidently declare that kenaf is a viable and valuable industrial material. Both the public and private sectors are becoming more conscious of kenaf and its potential.

This book is a compilation of intensive multidisciplinary research works on kenaf. The aim is to enhance the understanding of kenaf as a raw material in Biocomposite, pulp & paper, biopolymers manufacturing processess in Malaysia, and to be one of the main sources of reference on kenaf. The book is multidisciplinary in nature where science meets the social science which proven to be beneficial in escalating the impact of research and commercialisation. The content is simple and interesting for both fields of studies, and we expect more of its kind to be published in the future. Congratulations to all the editors and the contributors on their hard work!

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