2015

MyCITES User Manual

This work was made possible by a grant from ITTO under the collaborative program with CITES "Support to ITTO: CITES Implementation for Tree Species and Trade/Market Transparency (TMT)". Donors to this collaborative program include the EU (primary donor), the USA, Germany, the Netherlands and Norway".

ITTO Work Program for 2013 on Support to ITTO-CITES Implementation for Tree Species and Trade/Market Transparency (TMT)

Forest Research Institute of Malaysia (FRIM)
Kepong 52109 Selangor

MyCITES USER MANUAL

F. Mohd Azahari, Y. Siti Yasmin and K. Abd Rahman

Forest Research Institute Malaysia (FRIM)
52109 Kepong, Selangor,
Malaysia

2015

All enquiries should be forwarded to:

Director-General
Forest Research Institute Malaysia
52109 Kepong
Selangor Darul Ehsan
Malaysia
Tel: 603 - 6279 7000
Fax: 603 - 6280 4624
http://frim.gov.my

Set in Cambria 11 pt

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLE

SUMMARY

This manual is produced as a guide to use MyCITES website effectively. The MyCITES is intended for user that comes from various fields and applications such as students and researchers. MyCITES provide the latest information and details on CITES species for the purpose of learning, monitoring, conservation planning and other relevant activities in Malaysia.

As the name of website "MyCITES", this website developed to compile the information related to species listed in Appendix I, II and III of the Convention of International Trade on Endangered Species of Wild Flora and Fauna (CITES) CITES as endangered and protected species from over-exploitation. Currently, MyCITES include two species, *Gonystylus bancanus* and *Aquilaria malaccensis*. In the future, we expected that MyCITES will be extended to other Malaysian species listed by CITES.

Currently, each species page in MyCITES contain four main components:

(i) Ramin and Karas distributions in Malaysia;
(ii) Research and development of Ramin and Karas in Malaysia;
(iii) Timber trade and production of Ramin and Karas in Malaysia;
(iv) Malaysia policy and management practices of Ramin and Karas;

Thus, we hope that this manual could assist the user to explore MyCITES database that can be accessed through www.mycites.frim.gov.my.

Regard,

MyCITES Team

1.0 WEBSITE ARCHITECTURE AND STRUCTURE

MyCITES have been created to provide information on Malaysia CITES listed species via web browser. User of this database will be able to browse MyCITES portal to login and use the service, view all the information that has been shared in MyCITES (currently information on Ramin and Karas) and also can view and download all the information such as journals, books and other available publications.

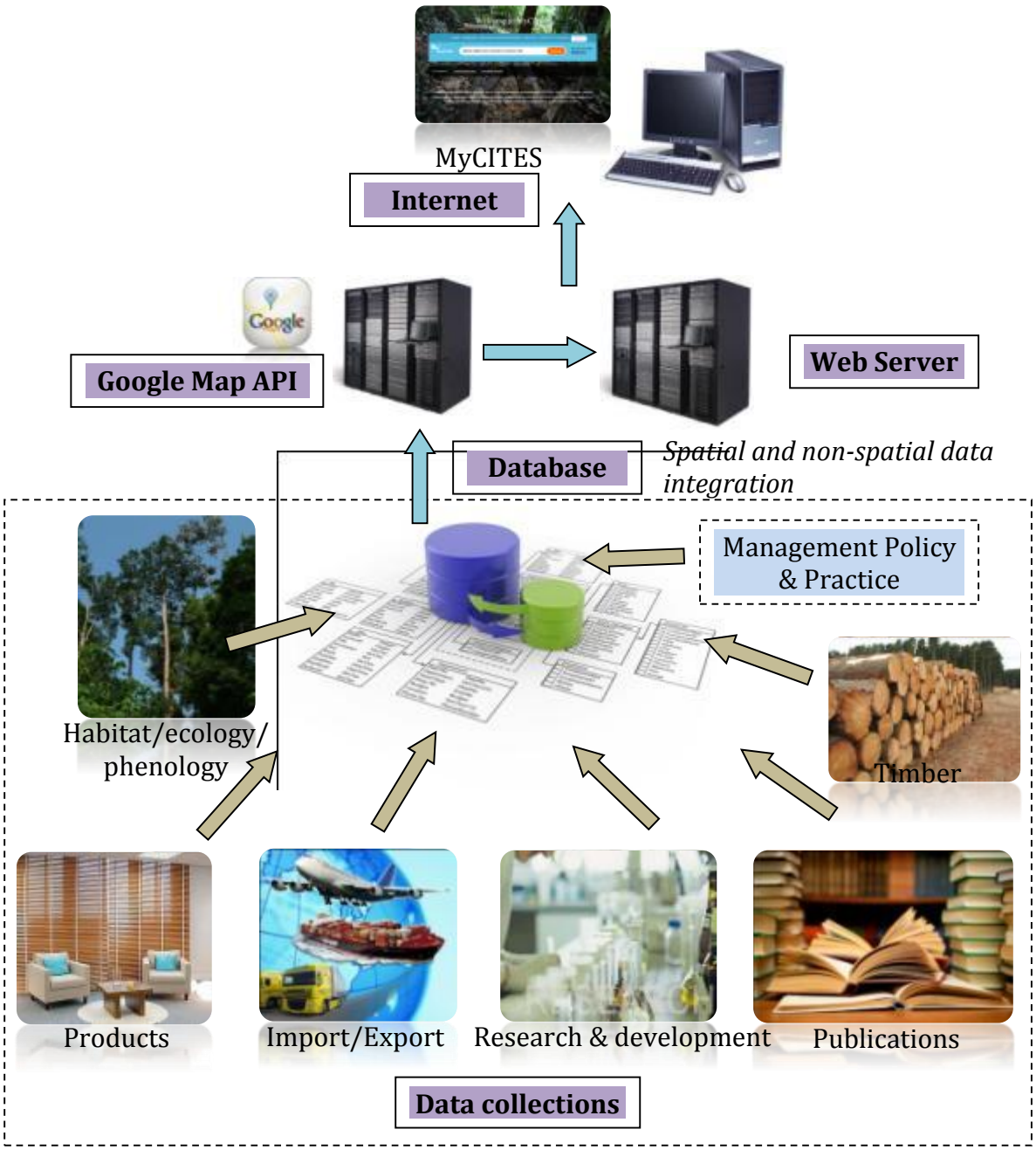


Figure 1 Structure design of MyCITES website and information database

MyCITES web based information system has been developed with client-server architecture. The server part consisted of data storage, file storage which will provide data access and maintenance. The administrator of MyCITES create and manage articles, publications and updating information via internet connected device. The interface are designed to be clean and simple to give comfortable working environment to the administrator. The website part consists of a web portal with key area that include list of species, list of publication (journals, books, research paper), newspaper articles, conference and seminar information and other related information. This website will give access to a wide range of information related to Ramin and Karas. **Table 1** shows the system requirement for development and access to MyCITES website. Back end of MyCITES website was developed using the latest version of PHP 5 as a programming language and MySQL 5 as the database platform.

Table 1 System requirements for development and access to MyCITES website.

Server Specification	Web Specification
Workstation	Any desktop/laptop
Any Operating System	Any Operating System
Web Server	Internet connection
MySQL DBMS	Any browser
Firewall	

2.0 MYCITES SPECIFICATION

There are five elements in the design of the MyCITES website and database namely layout design & concept, user requirement study, web development, web features, and web system module. **Table 2** shows the characteristics of each element involved in the development of MyCITES.

Table 2 Characteristics of each element involved in the development of MyCITES.

No.	Element	Specification
1	Layout design & concept	✓ Unique custom & creative web concept and objective. ✓ Layout architecture strategy and planning for easy content reading, accessibility and reading.

2	User requirement study	✓ Understanding objectives and activities of the project ✓ Restructuring the existing web contents to reach the targeted group ✓ Ensure the best visual solutions possible
3	Web development	✓ CMS (Content Management System) Integration with Administrative Control Panel. ✓ A special and customized Content Management System (CMS) to maintain and keep your site updated. ✓ CMS Features: - Admin login access panel - Admin notifications and Alert - Add new pages with text and image - User Management - Text - Formatting and styling - Visual and code view ✓ Page Manager Module - Create unlimited pages - Manage Categories and Page Group - Add/Delete/Rename Categories - Add/Delete/Edit pages - Assign pages to the parent - Create unlimited sub pages ✓ Valid XHTML/CSS Web Conversion for browser compatibility and accessibility - Internet Explorer 10.0 and above, Firefox, Safari and Chrome. ✓ Mobile browser friendly layout design structure and coding. ✓ SEO Friendly Web Structure
4	Web Features	✓ Navigation & Menu - Valid CSS based menu - Customized drop down menu - Cross browser support - Navigation Manager - add/edit/delete main menu - Sub Navigation Manager - add/edit/delete submenu

		✓ News Features - Auto latest News at the main page - Add/ edit/ delete news - Archived with pagination ✓ Announcements Features - Auto latest Announcements at the main page - Add/edit/delete announcements - Archived with pagination ✓ Media Centre - Image gallery – add/ edit/ delete - Archived with pagination ✓ Online Contact Form - With Forms validation and error checking - Redirect to admin emails or multiple receivers ✓ Multiple Language - Bahasa and English language pack - Language Selector - Multiple language manager using Content - Management System
5	Web system module	✓ Advanced search filters - Advanced search based on taxonomy fields - Drill down and filtering features - Auto-complete features ✓ Research & Development sections - Management of items - Advanced search filter - Search options based on publication type ✓ Simple User Registration ➢ Online user registration form

3.0 MAIN FRONT PAGE

3.1 Main Home Page

The user can access the website by typing http://mycites.frim.gov.my at internet browser. The user will see the main front page as shown in **Figure 2**. This page contains all the links to species database.

Currently, MyCITES only covers two species, *Aquilaria malaccensis* and *Gonystylus bancanus*. The numbers of tree species database will increase in future (depending on the demand and effort of other researchers to include the other Malaysian CITES species into MyCITES) the website are designed to cater the expansion of new species database to be added into MyCITES.

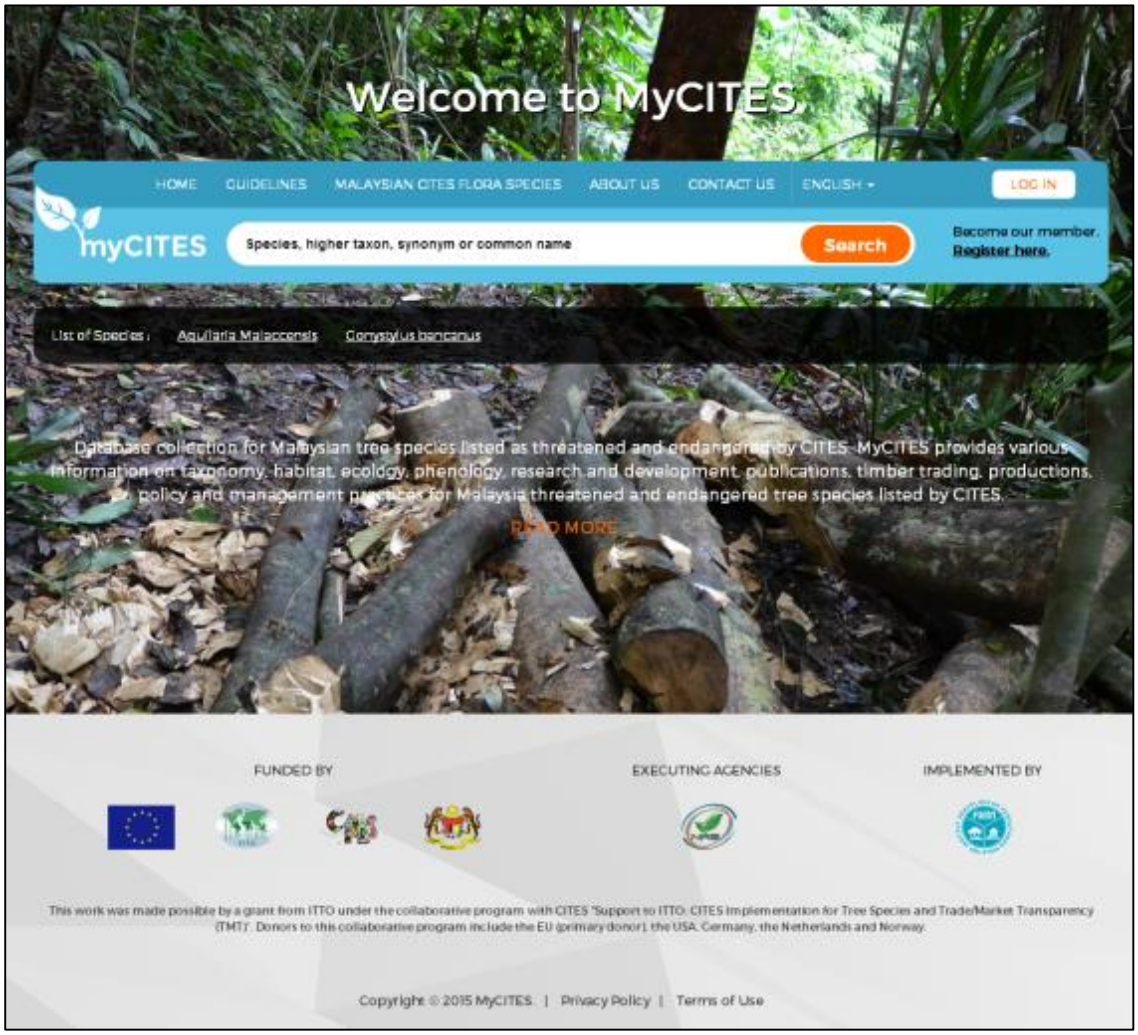


Figure 2 Homepage of MyCITES

The user can go to Species Front Page by two way, either:

i. Clicking on desired species name (**Figure 3**)

- This is the suggested way as currently there are only two species, so the user can easily select the page of desired species right away.

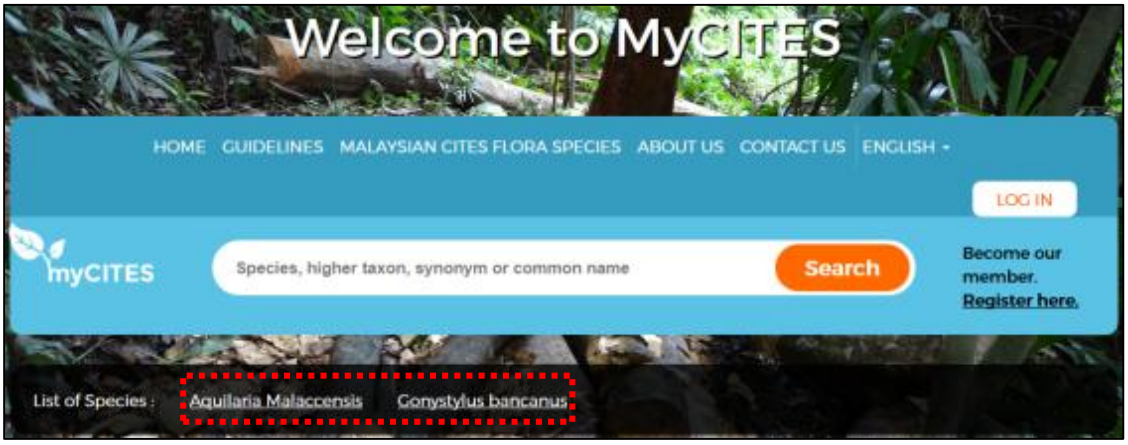
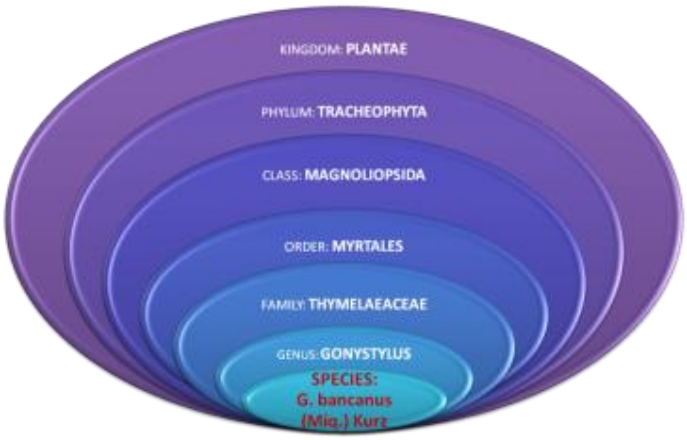


Figure 3 Directly click to desired species page link

ii. Search tool (**Figure 4**)

- As mentioned earlier, MyCITES will be extended to other Malaysian CITES species (there are 1022 flora species currently listed in Appendix I, II and III by CITES). In the future the list of species page will increase and it will take longer time to search their desired species home page. This tool can help to minimize the searching process.
- User can type keywords related to the species, for example:
  - i. Species name
  - ii. Higher taxonomic hierarchy: genus, family, order, class and phylum



  - iii. Vernacular name / common name

For example:

Species	Vernacular name
Gonystylus bancanus	ramin melawis, ramin telur, garu buaya
Aquilaria malaccensis	karas, chandan, chingkaras, depu, gaharu, gaharu lampong, gharu, johog-galuk, engkaras, kekaras, kempas nenasi, kepang, tabak, taboh, tengkaras

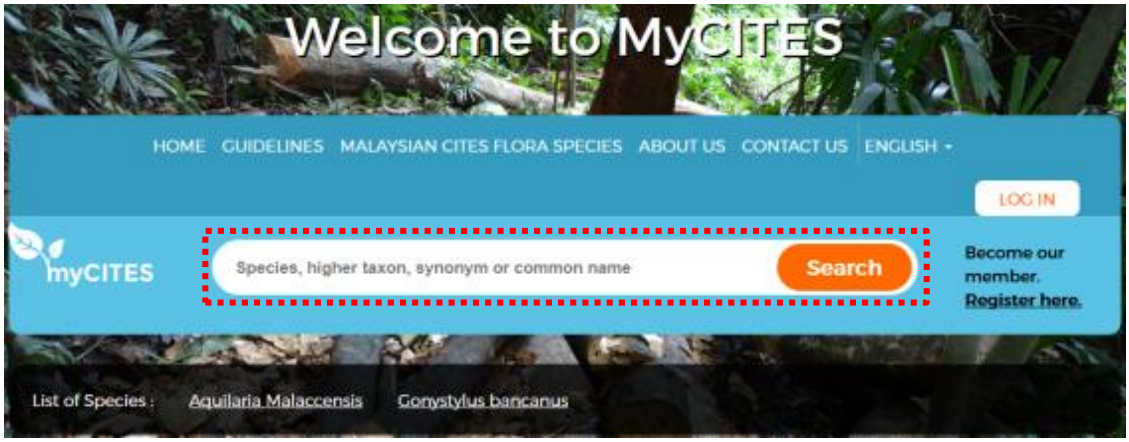


Figure 4 Search tool to go to Species Front Page

3.2 Guidelines

A guidelines for explained the efficient way to use the website and the content for each species page (**Figure 5**).

Figure 5 Guidelines for using the website

3.3 Malaysian CITES Flora Species

This tab contains the list of family of Malaysian CITES flora species according to Appendix (Appendix I, II and III) (**Figure 6**).

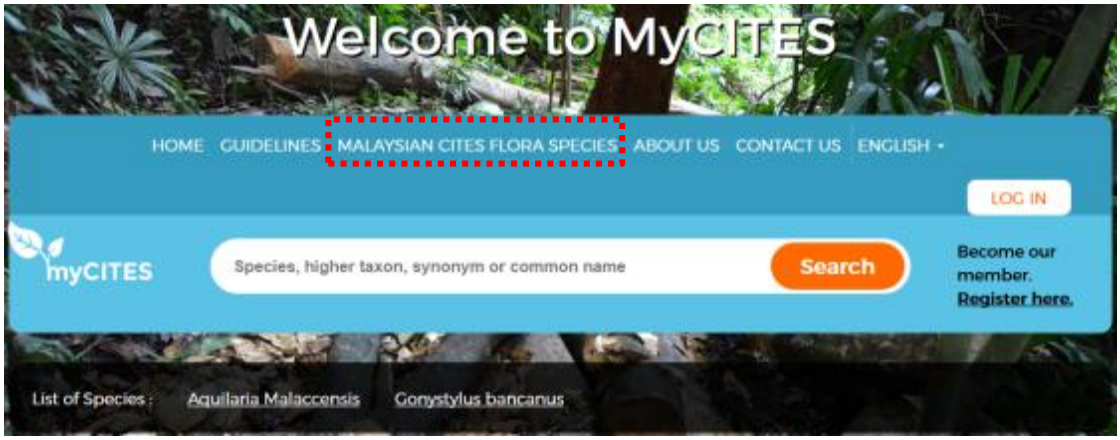


Figure 6 Malaysian CITES Flora Species contains the list of family of Malaysia CITES flora species

3.4 About Us

About us button explain about MyCITES and the details about implementing and funding agency (**Figure 7**).

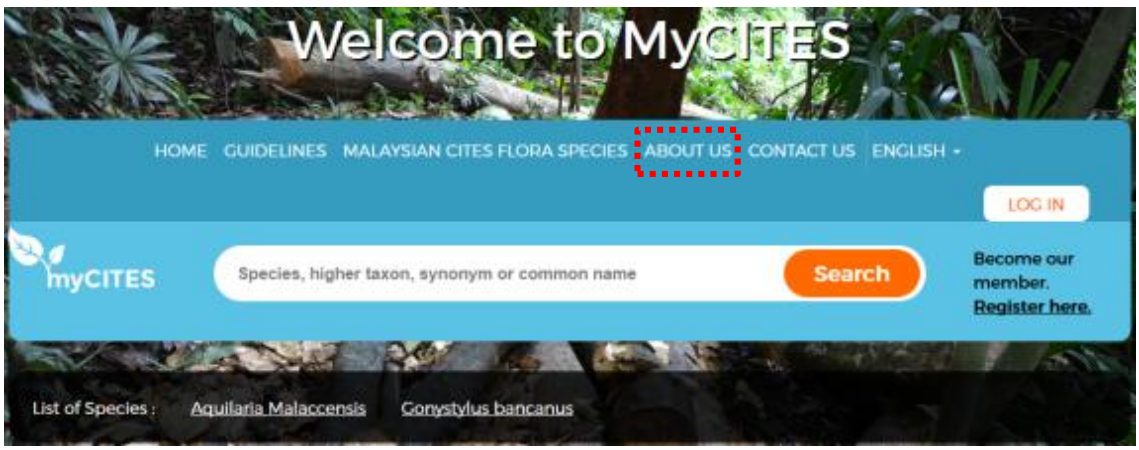


Figure 7 About Us explain about MyCITES

3.5 Contact Us

The user can send message to the administrator (implement agency) if they have any query regarding the content of the website by filling the provided form (**Figure 8**).

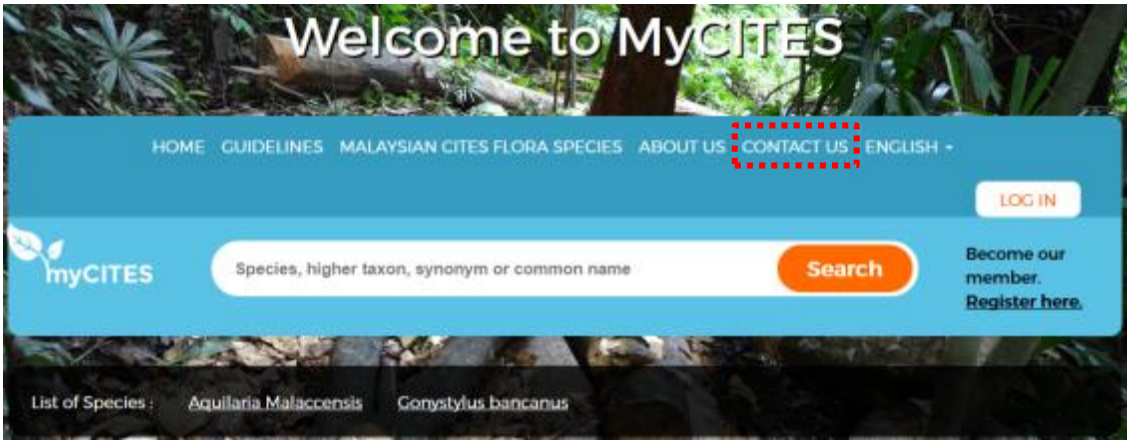


Figure 8 Contact Us for user to send message to the administrator

3.6 Language

User can switch the language of website to either English or Bahasa Malaysia (**Figure 9**).

Figure 9 Language switching for user to select to either English or Bahasa Malaysia

We have included MyCITES Bahasa Malaysia as we observe that some of Karas plantation owners are come from variety of people with different level of knowledge (the observation were made during the cultivation workshop which were also participated by many villagers who are unable to communicate in English). Their participation in this workshop also proved that they are also looking for information regarding this species.

4.0 SPECIES HOME PAGE

4.1 Species Homepage (Overview Page)

Once the user has chosen their desired species page, the user will see Species Homepage as in **Figure 10**. There are five contents under Species Homepage:

i. Introduction
ii. Taxonomy and Nomenclature
iii. Habitat
iv. Ecology and Phenology
v. Distribution Map by Forest Reserve

The content for Species Homepage is shared by both species but the sub-content is different (**Figure 10**).

Introduction, Taxonomy and Nomenclature, Habitat, Ecology and Phenology is static content where the user can scroll up and down without doing anything. User can click to any content to see the sub-content.

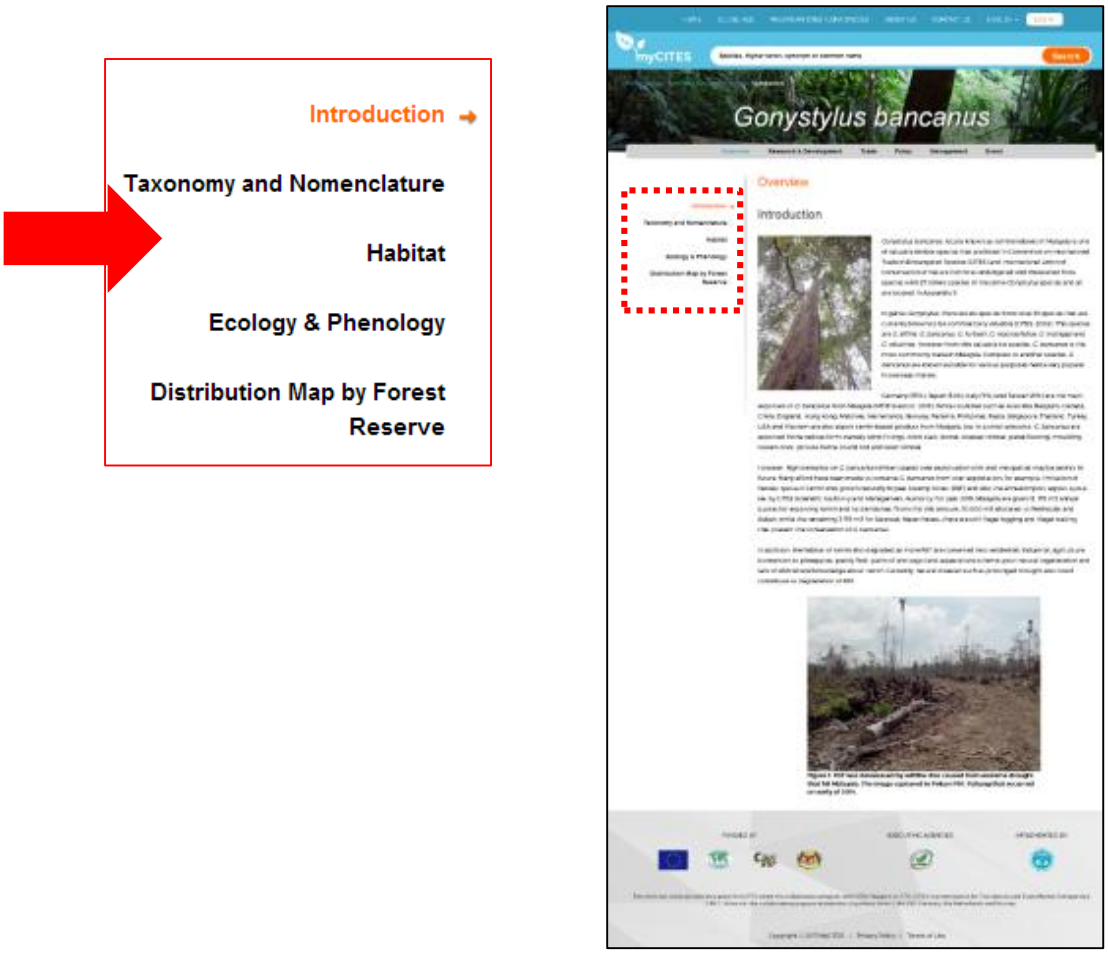


Figure 10 Species Home Page for *Gonystylus bancanus*

The user can click on any point or location in Distribution Map by Forest Reserve to see the details about the location (**Figure 11**):

i. Name of forest reserve where the stands of *Gonystylus bancanus* and *Aquilaria malaccensis* can be found
ii. State = the state where the location of the forest reserve is located
iii. Year when the data is collected.
iv. Source = where the data is obtained

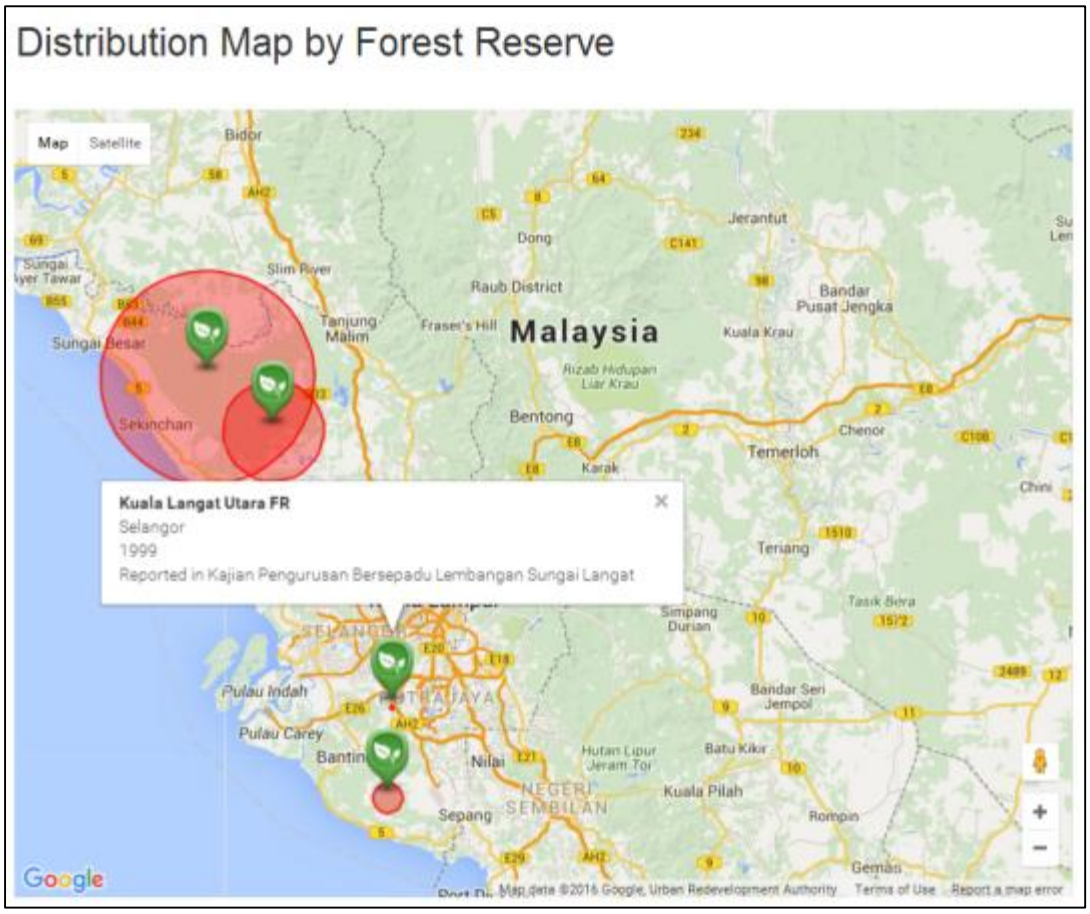


Figure 11 Distribution map by forest reserve for *Gonystylus bancanus*

4.2 Research and Development page

There are four content under Research and Development page:

i. Overview = introduction to the research in Malaysia contains list of agencies and institutions involved in the research
ii. Research Projects = list of research projects
iii. Publications = list of publications
iv. Technologies & Invention = list of technologies and invention

The content for Research and Development for both species is similar but the sub-content is different (**Figure 12**).

Figure 12 Research and development for *Gonystylus bancanus*

4.2.1 Research Projects

There are many research projects (**Figure 13**) listed, hence to expedite searching the desired projects the user can filter using any or combine information below:

i. Keywords = filter the search by entering the keywords for the project's title
ii. Year = filter the search by when the project started
iii. Duration = filter the search by the duration of the project implemented
iv. Select Executing Agency = filter the search by desired agency that executed the project

Figure 13 Searching tools in Research Projects

A new page that contains further information about the projects will pop-up when the user click on any of their interested project as shown in **Figure 14**.

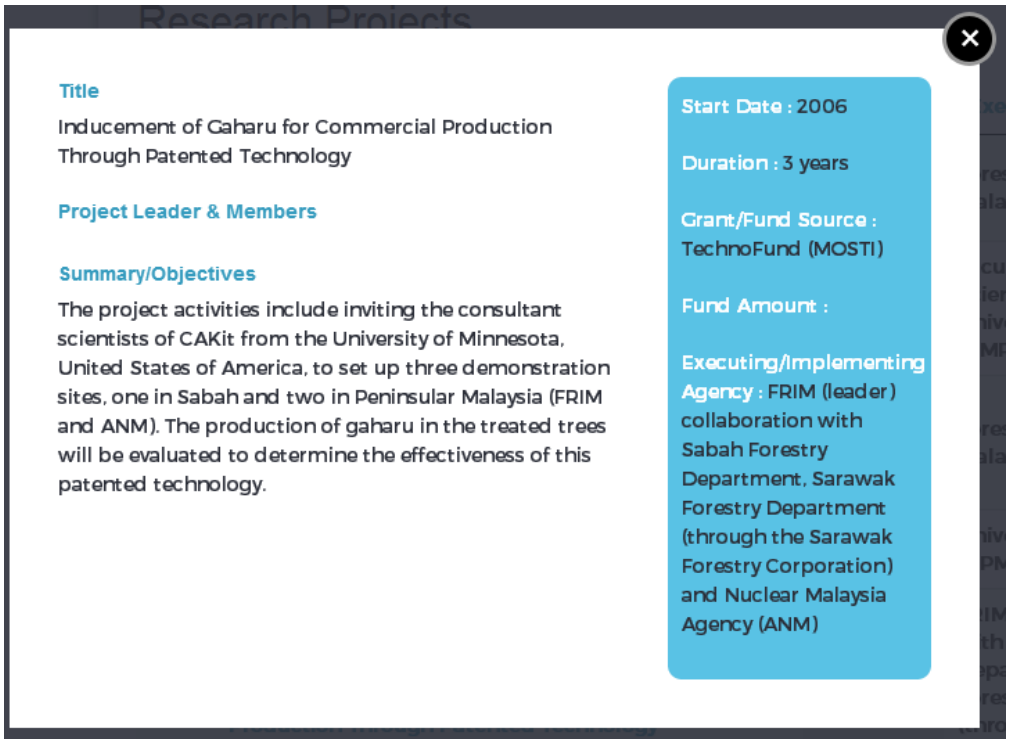


Figure 14 Example: Information of selected project

4.2.2 Publications

Similar to search for publications (**Figure 15**), hence to expedite searching time the desired publications, the user can filter using any or combine information below:

i. Keywords = filter the search by entering the keywords for the publication's title
ii. Type = filter the search according to type such as journals, proceedings, reports, review, bulletins, books and thesis
iii. Author = filter the search by key in the author of the publication
iv. Select Year = filter the search if the user know when the publication was published
v. Select Status = User can filter to show either Purchase or Free download publications

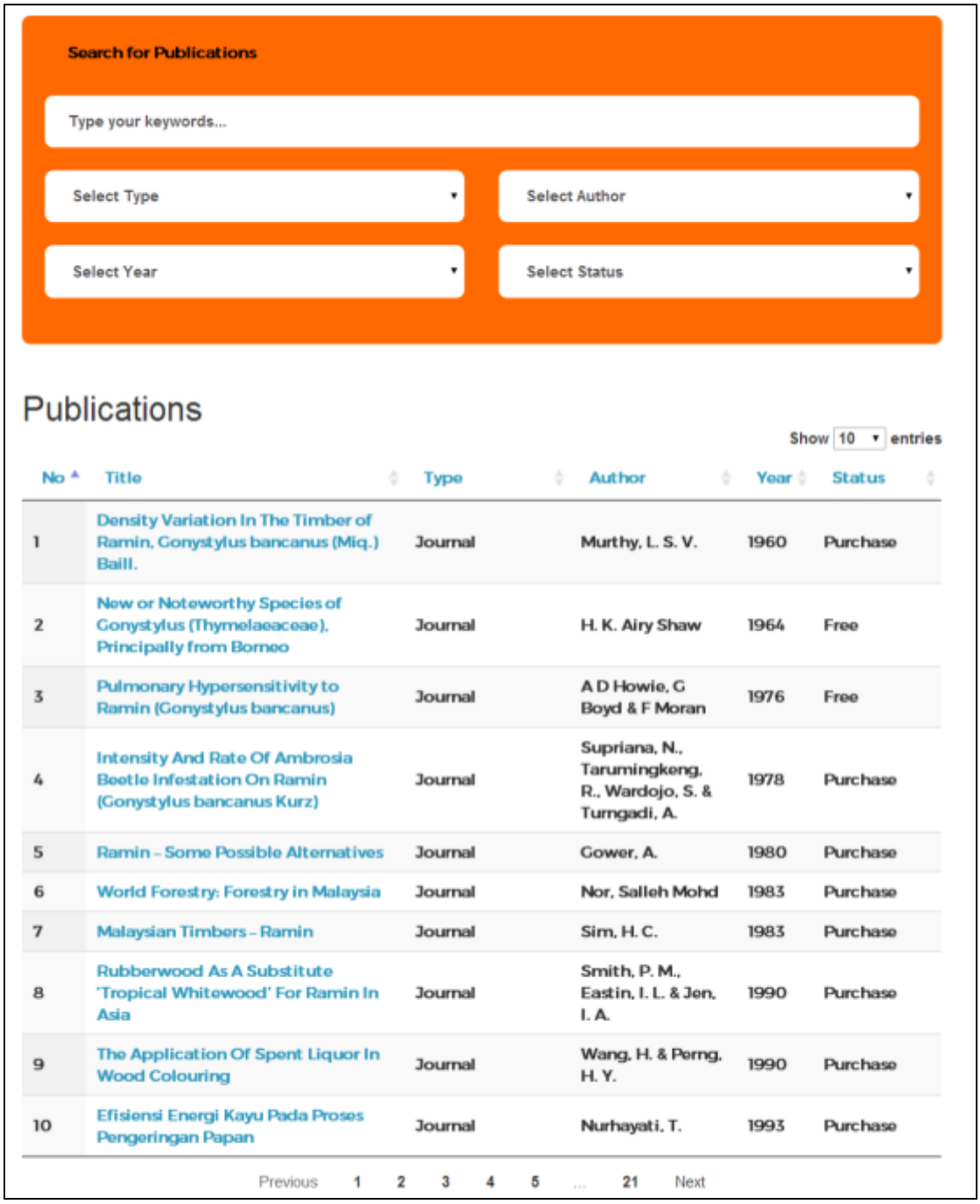


Figure 15 Searching tool in Publications

A new page that contains further information about the publications will pop-up when the user click on any of their interested publication as shown in **Figure 16**.

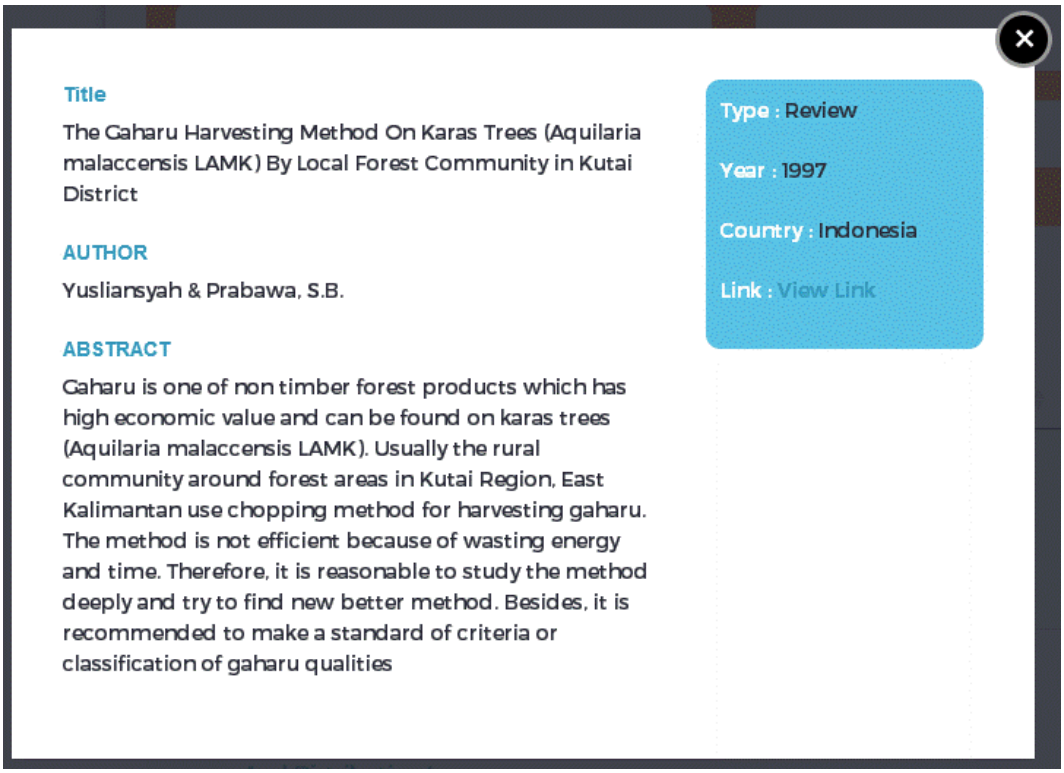


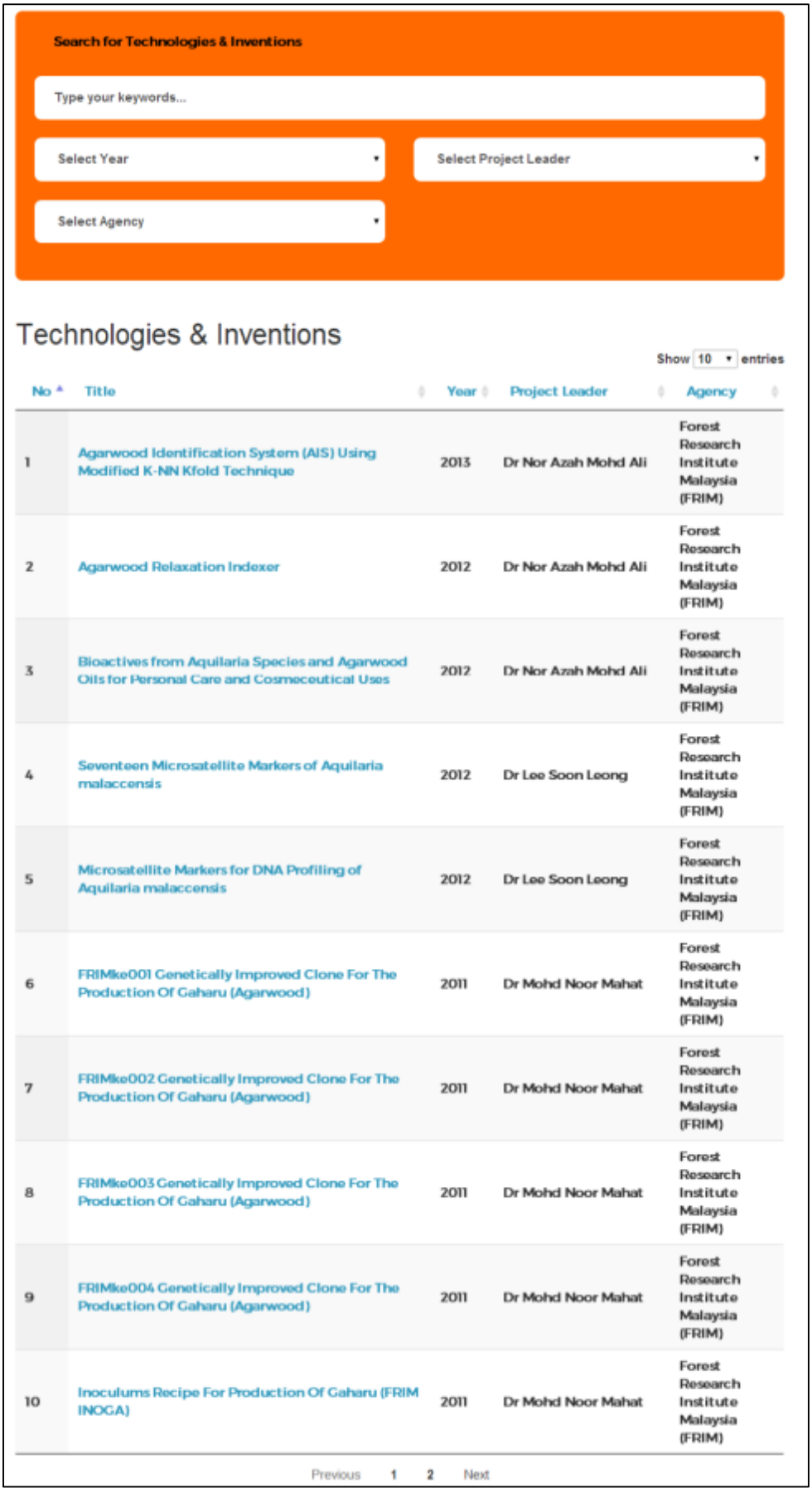
Figure 16 Example: Information of selected publication

4.2.3 Technologies & Invention

This page contains the list of technologies and invention related to *Gonystylus bancanus* and *Aquilaria malaccensis* produced by Malaysian researchers.

Since there are a lot of technologies and inventions (**Figure 17**), hence to reduce the searching time for searching the desired technologies and inventions, user can filter using any or combine the filtration methods below:

i. Keywords = filter the search by entering the keywords for the technologies and invention's 's title
ii. Select Year = filter the search if the user know when the technologies and inventions were introduced
iii. Project Leader = filter the search by key in the name of project leader of the projects for technologies and inventions
iv. Select Agency =filter the search by desired agency that executed the technologies and inventions



Technologies & Inventions

Show 10 entries

No	Title	Year	Project Leader	Agency
1	Agarwood Identification System (AIS) Using Modified K-NN Kfold Technique	2013	Dr Nor Azah Mohd Ali	Forest Research Institute Malaysia (FRIM)
2	Agarwood Relaxation Indexer	2012	Dr Nor Azah Mohd Ali	Forest Research Institute Malaysia (FRIM)
3	Bioactives from Aquilaria Species and Agarwood Oils for Personal Care and Cosmeceutical Uses	2012	Dr Nor Azah Mohd Ali	Forest Research Institute Malaysia (FRIM)
4	Seventeen Microsatellite Markers of Aquilaria malaccensis	2012	Dr Lee Soon Leong	Forest Research Institute Malaysia (FRIM)
5	Microsatellite Markers for DNA Profiling of Aquilaria malaccensis	2012	Dr Lee Soon Leong	Forest Research Institute Malaysia (FRIM)
6	FRIMke001 Genetically Improved Clone For The Production Of Gaharu (Agarwood)	2011	Dr Mohd Noor Mahat	Forest Research Institute Malaysia (FRIM)
7	FRIMke002 Genetically Improved Clone For The Production Of Gaharu (Agarwood)	2011	Dr Mohd Noor Mahat	Forest Research Institute Malaysia (FRIM)
8	FRIMke003 Genetically Improved Clone For The Production Of Gaharu (Agarwood)	2011	Dr Mohd Noor Mahat	Forest Research Institute Malaysia (FRIM)
9	FRIMke004 Genetically Improved Clone For The Production Of Gaharu (Agarwood)	2011	Dr Mohd Noor Mahat	Forest Research Institute Malaysia (FRIM)
10	Inoculums Recipe For Production Of Gaharu (FRIM INOGA)	2011	Dr Mohd Noor Mahat	Forest Research Institute Malaysia (FRIM)

Previous 1 2 Next

Figure 17 Technologies and Inventions

A new page that contains further information about the technologies and inventions will pop-up when the user click on any of their interested technologies and publications as shown in **Figure 18**.

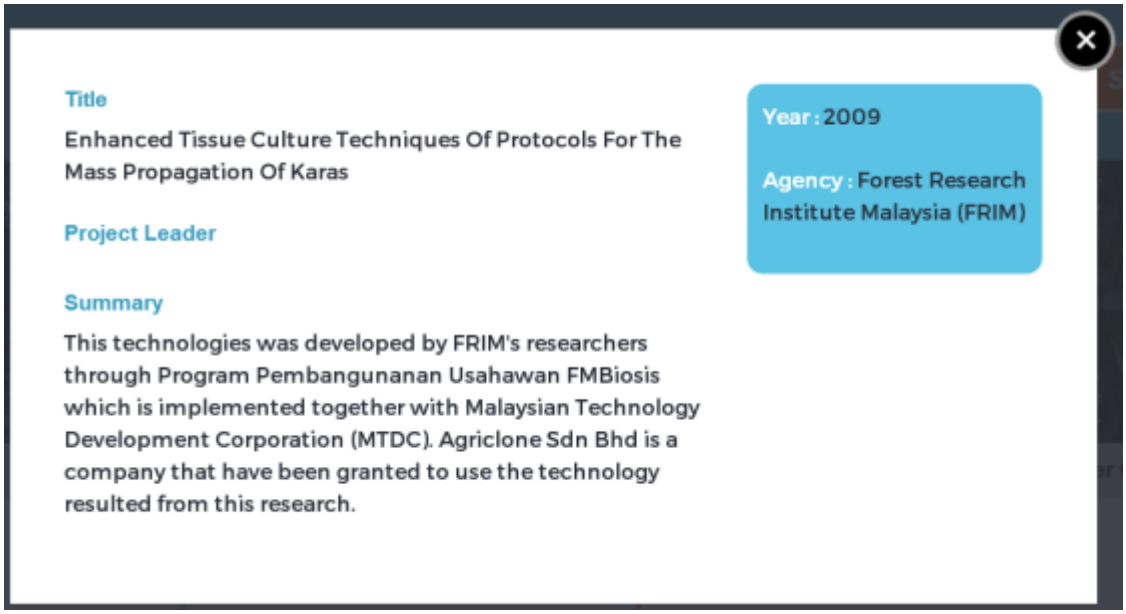


Figure 18 Example: Information of selected technologies and inventions

4.3 Trade

In Trade page showed the location and amount of import and export for *Gonystylus bancanus* and *Aquilaria malaccensis* products. Moreover, the list of products and its function also described.

Trade is a static page where user can only scroll down to read all the content and sub-content in Trade.

There are two contents under trade:

i. Statistics = statistic import and export for species products
ii. Production = list of products produced from species

The content for Trade for both species is similar but the sub-content is different.

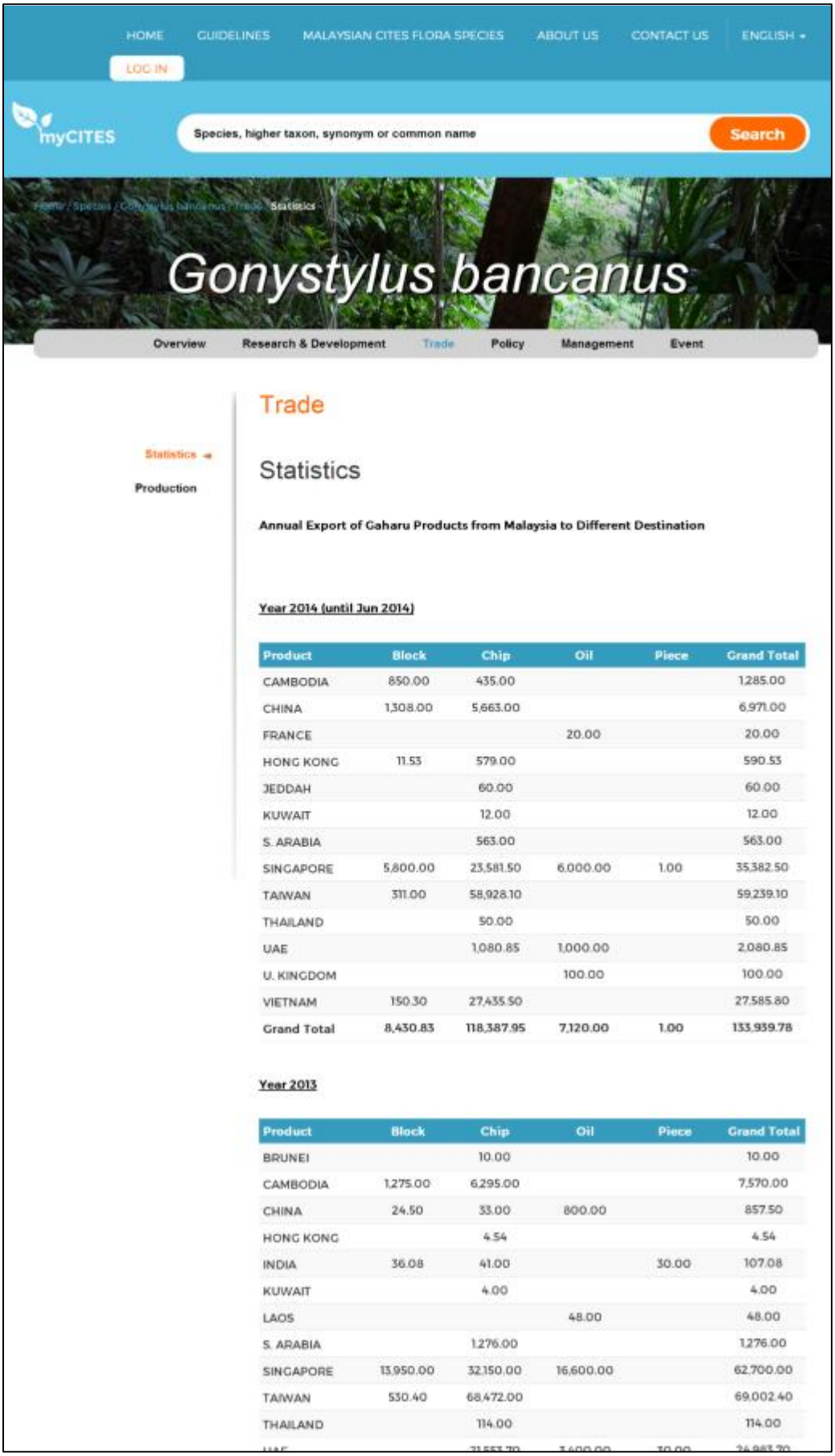


Figure 19 Trade

For Production information of *Gonystylus bancanus* there is only single sub-content, however for *Aquilaria malaccensis*, the content are divided to four sub content (**Figure 20**):

i. Karas Industries in Malaysia
ii. Products
iii. Agarwood Extract Oil Process
iv. Grade & Market Price

User can click to any of sub-content header to read.

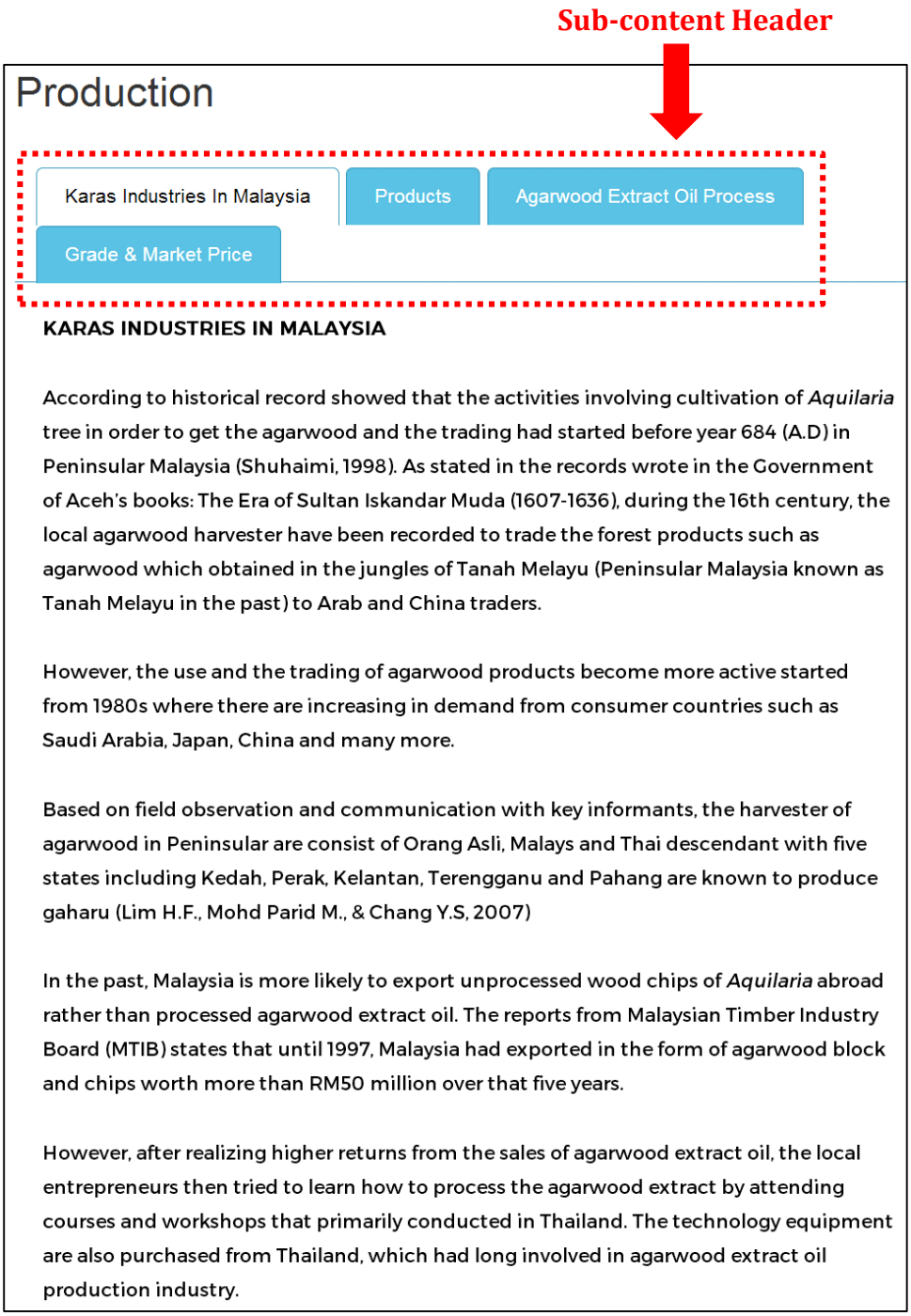


Figure 20 Production page for *Aquilaria malaccensis*

4.4 Policy

Policy page described the policy used in manage and protect threatened species. Both *Gonystylus bancanus* and *Aquilaria malaccensis* are protected by Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and listed in Appendix II. Besides, Malaysia is one of signatory party of CITES.

User can only scroll down to read all the content in Policy. There are seven main content in Policy (**Figure 21**):

i. CITES and Malaysia = the connection between CITES and Malaysia
ii. Appendix = explanation Appendix I, II and III in CITES
iii. Act 686 = Act used to control the international trade the species of flora and fauna listed in CITES
iv. CITES Management Authority
v. CITES Malaysia Authorities Directory
vi. Export Quota = the export quota set by CITES Scientific Authority and Management Authority
vii. Permit Application = the guidelines for permit application

The first five content (i-v) as listed are similar for both species, meanwhile the sub-content for Export Quota and Permit Applications are different according to species.

Figure 21 Policy

4.5 Management

User only can scroll down to read all the content and sub-content in Management (**Figure 22**).

The content for Management for both species is differ as both planted in different locations and to produce different products.

Gonystylus bancanus located in peat swam forest and apply management system which have been predetermined.

Therefore, the content for *Gonystylus bancanus* includes:

i. PSF Management System = explanation about types of management used in Malaysia
ii. Harvesting Method = Reduced Impact Logging (RIL) steps used to harvest the tree
iii. Ramin Transportation Methods = how the logs are transferred to factory

Due to the fact that *Aquilaria malaccensis* are depleting in their original habitat and uncontrolled exploitation, plantations have been introduced to cater the demands for Karas-based products in international markets especially for Arabic countries, Taiwan, Hong Kong, Japan, Korea and China. In addition *Aquilaria malaccensis* is the tree easily can adapt to a variety of plantations environment that make it suitable for commercial planting. Therefore the management of *Aquilaria malaccensis* in commercialize plantation should be emphasized. On the other hands, most of the tree planted with purpose to produce agarwood where the planters requires inoculation technique to expedite the formation of the agarwood.

Therefore, the content for *Aquilaria malaccensis* includes:

i. *Aquilaria* Plantation = step to plant and manage the tree in plantation
ii. Pest Control and Crop Disease = way to control the pest and crop disease
iii. Inoculation = step for make inoculation to stimulate the production of agarwood in plantation

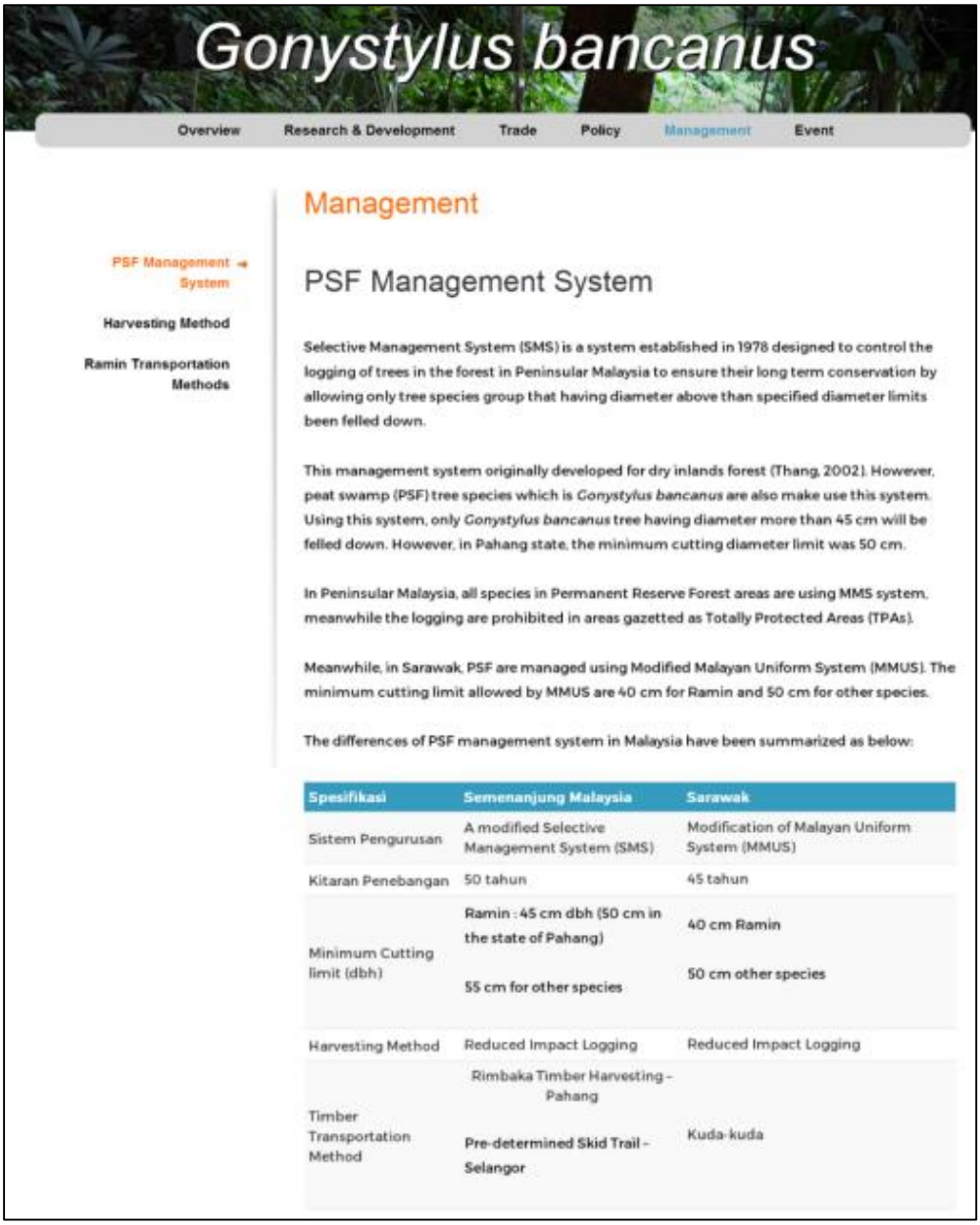


Figure 22 Management for *Gonystylus bancanus*

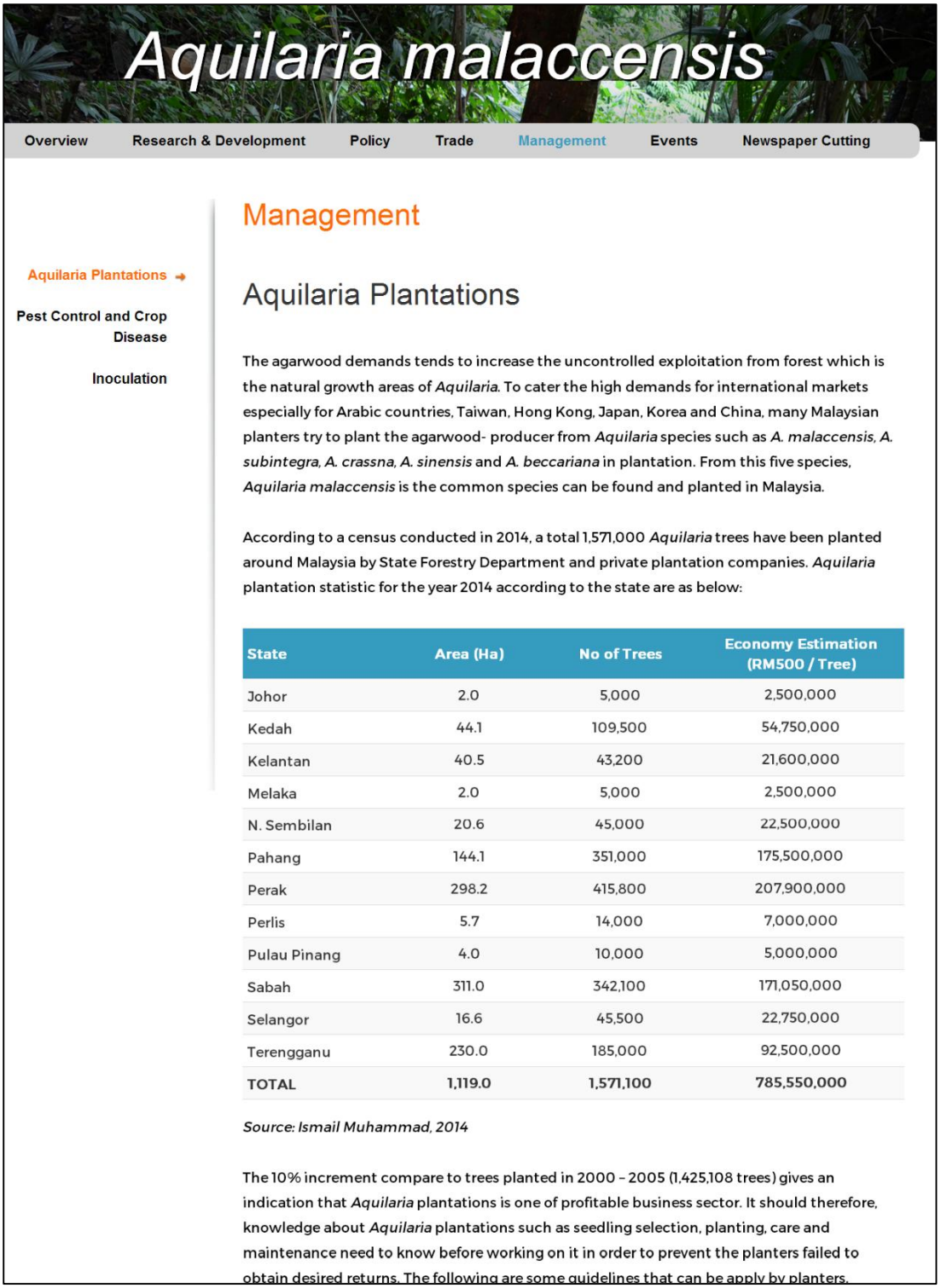


Figure 23 Management for *Aquilaria malaccensis*

4.6 Newspaper cutting

Newspaper cutting contain the news reported and available through online news portal and newspaper.

Information on Newspaper cutting available only for *Aquilaria malaccensis* tree.

There are a lot of newspaper cutting, hence to expedite searching time for the desired news the user can filter using any or combine the filtration methods below:

i. Keywords = filter the search by entering the keywords for the news
ii. Type = filter the search according to type of news such as conservation, crime, industry, medication, plantation or research
iii. Duration = filter the search by the duration of the project implemented
iv. Select Paper = filter the search by select the source of newspaper such as Sinar Harian, Utusan Malaysia, Kosmo or The Star

User also can read the news by clicking at the title of the newspaper (**Figure 24**). After click, the new browser will pop-up showing the whole story of the news at their original website link.

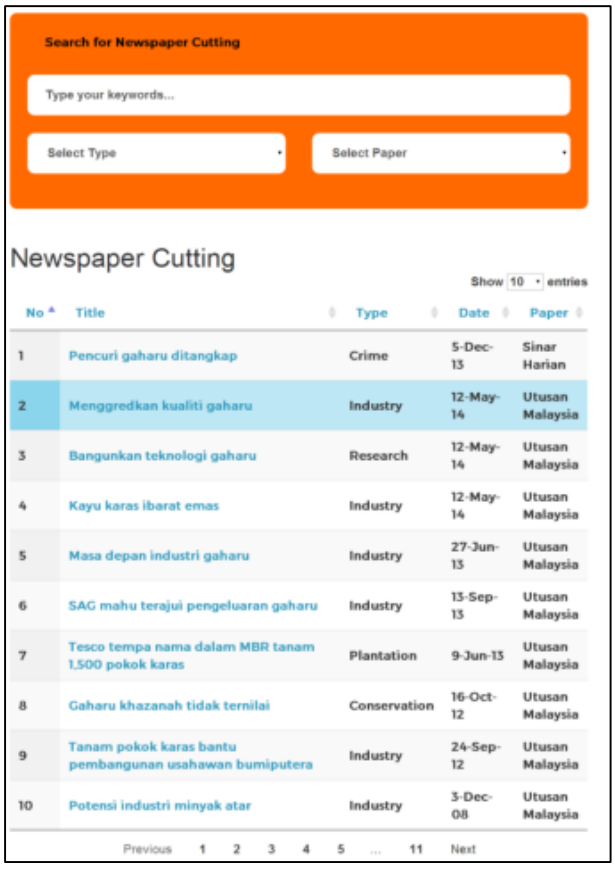


Figure 24 Newspaper cutting