

**THE TRADE AND USE
OF AGARWOOD
(OUDH) IN THE
UNITED ARAB
EMIRATES**

**MARINA ANTONOPOULOU,
JAMES COMPTON,
LISA S. PERRY AND
RAZAN AL-MUBARAK**

A REPORT
COMMISSIONED BY THE CITES SECRETARIAT



TRAFFIC
the wildlife trade monitoring network



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**Cover:** Agarwood buyer in specialised agarwood retail outlet in Dubai

**Photograph credit:** James Compton/TRAFFIC

# The trade and use of agarwood (*Oudh*) in the United Arab Emirates

Marina Antonopoulou, James Compton, Lisa S. Perry and Razan Al-Mubarak

A report commissioned by the CITES Secretariat



James Compton/TRAFFIC

Agarwood pieces are usually burnt on charcoal in a brazier

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The information detailed in this document was collected over a protracted series of consultations with people involved in various aspects of the agarwood industry – growers, processors, traders, company directors, government regulatory officials and end-consumers. A great variety of people gave willingly of their time, while others were unwaveringly polite in answering the persistent requests for information about this fascinating trade in a unique aromatic wood.

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\* The UAE has recently re-organised its CITES Authorities, and the updated personnel and institutions responsible for these matters can be found at <http://www.cites.org/cms/index.php/lang-en/component/ncd/?country=AE>

## **GLOSSARY**

### **Agarwood Products**

*Attars* = Oil based Arabian perfumes with different blends of ingredients such as: agarwood, saffron, musk, amber, sandalwood

*Bakhoor* = Agarwood powder or shavings mixed with other scents and aromatic woods to be burnt

*Dihn al oudh* = Agarwood oil

*Jedid* = Old

*Kadim* = New

*Maliki* = royal

*Mukhalat* = Blended fragrances of agarwood, amber, sandalwood and other

*Oudh* = Raw agarwood in form of chips

*Seufi* = sword

*Toula* = traditional unit of measurement which equals approximately to 11.62 grams, which is applied to both wood chips and agarwood oil, as well as to blended products.

### **Abbreviations**

**DED** = Department of Economic Development of Dubai Government

**DCCI** = Dubai Chamber of Commerce and Industry

**EAD** – Environment Agency, Abu Dhabi, the CITES Scientific Authority of the UAE

**FEA** – Federal Environment Agency, based in Abu Dhabi, which houses one of two CITES Management Authorities in the UAE

**GCC** – Gulf Co-Operation Council, created in 1981, comprising the sovereign States of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates. A GCC Common Market was created in January 2008.

**HSC**= Harmonised System of Coding

**MAF** – Ministry of Agriculture and Fisheries (superseded in 2006 by Ministry of Environment and Water)

**MEW** – Ministry of Environment and Water, based in Dubai, which houses one of two CITES Management Authorities in the UAE

## EXECUTIVE SUMMARY

Known in Arabic as *oudh*, agarwood is an important part of life in the UAE for Emiratis as well as Arabic culture in general. It is used as a traditional aromatic and perfume in many forms: from high grade wood chips burnt by Sheikhs to honour their guests, perfuming personal garments before special occasions and in preparation for prayer, through to providing general household fragrance. It is sold in raw form (wood chips and pieces), as oil (both pure and blended with other fragrances), as perfume products, and in various forms using small shavings of wood mixed with other fragrant ingredients.

Globally there are two major market regions for agarwood consumption, north-east Asia and the markets of Taiwan, Japan, and the Republic of Korea, and west Asia or the “Middle East” which centres on the countries of the Arabian Peninsula. The uses of this resinous wood include medicinal, religious and cultural purposes in various societies across Asia. No agarwood-producing species is known to grow west of India, and yet it has been a traded item within Arab-speaking commerce for over 2000 years, being sourced from both India and further east into South-east Asia.

Since 2004, when the United Arab Emirates (UAE) began submitting complete CITES Annual Reports<sup>1</sup>, its reported imports of agarwood products have been on a steadily increasing trend: for example, imports of agarwood chips alone rose from over 56 tonnes in 2004 to more than 162 tonnes in 2007, approximately an increase of 300% in a four-year period.

As such the UAE represents, along with Saudi Arabia, the dominant market for agarwood products in the Middle East. While Saudi Arabia is a significant direct importer from range and trading States in Southeast Asia, it is also the largest recipient market for agarwood products reported as re-exported from the UAE. This is generally indicative of the entrepot or re-exporting role that the UAE plays for the Middle East region regarding the agarwood trade, in addition to its own national consumption.

The market structure for agarwood / *oudh* trade in the UAE has been largely opaque until now, and remains highly competitive – for example, there are no registered associations of importers or traders, as there are in other countries. Although there is some trading within the UAE market between wholesalers and retailers, there appears to be very little information exchange between companies.

There are some opinions among industry experts that the overall market for fragrances is changing rapidly away from traditional agarwood chips and oil, but TRAFFIC’s observations of the persistent availability of agarwood stocks in various product types confirm an extremely active retail market in the UAE. Many of the dominant companies have branches in the various department stores and high-end shopping malls, as well as dedicated shops scattered across Dubai and Abu Dhabi (as well as in other countries) – and the number of outlets continues to increase as new malls are built and retail shopping precincts opened.

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<sup>1</sup> Annual reports were sent to CITES beginning in 1999, but all were not complete since at the time no electronic database system for storing permit data. Once this procedure was set up in 2004, all data was stored electronically (CITES Management Authority of UAE, in litt. To TRAFFIC, 9 July 2008)

There is, however, a general awareness in the UAE market of the decline in availability of wild stocks from range States, both in quantity and quality – but particularly the latter. This reduction in quality is believed to be due to overexploitation of old-growth agarwood trees in the wild. Addressing this decline in conjunction with range States is the most critical element to ensuring the continuation of this centuries-old trade, and the cultural use of agarwood in the UAE and across the Middle East.

The fact that the UAE CITES Authorities have called for increased co-operation between agarwood producer and consumer countries is a positive sign, and putting this into action should be seen as the first important step towards securing mutual understanding between CITES Parties.

With regard to imports and exports, it is not possible to track the changes in the actual volumes, qualities and products traded over a long period, except through relatively recent reported CITES trade statistics, and some Customs data, since 2003. The CITES Management Authorities in Abu Dhabi (the Federal Environment Agency) and Dubai (the Ministry of Environment and Water, formerly the Ministry of Agriculture and Fisheries) have since 2004 worked in collaboration to improve the UAE's compliance with annual reporting requirements to the CITES Secretariat and the compilation of trade data at UNEP-WCMC.

The collaboration with key enforcement agencies, including Agricultural Quarantine and Customs remains essential to implementing and enforcing CITES controls and the provisions of the UAE's Federal Law No. 11. Efforts by the CITES Authorities in working with Customs to establish improved trade monitoring of CITES-listed species have been increased, but the overall impact from these efforts are as yet unable to be assessed with respect to official records of seizures and prosecutions. However, the increase in registration of agarwood traders with the CITES Management Authority shows a positive result of raising awareness with agarwood companies and traders.

It is important to note that this process of improved monitoring and implementation has taken place with respect to agarwood trade regulation despite the UAE having taken out a reservation for all *Aquilaria* (except *Aquilaria malaccensis*) and *Gyrinops* species. The UAE's active participation in the first CITES Agarwood Experts Group Meeting, held in Kuala Lumpur in November 2006 was an extremely positive step. The UAE's offer to host a similar meeting in the near future is another positive step towards resolving concerns related to the status of supply from both wild and cultivated sources, and the questions of personal effects exemptions and which products should be controlled under CITES.

Based on the research conducted by TRAFFIC in the period 2005-2007, the following recommendations are made:

- 1). To facilitate further considerations of concerns raised by the UAE in 2002 (at the CITES Asia Regional Meeting), 2004 (at CITES CoP13) and at the CITES Agarwood Experts Group Meeting in 2006, the UAE is encouraged to work with its neighbouring countries to convene a second experts' group meeting in the Middle East prior to CITES CoP15. Such a forum would allow for issues specific to the Middle East consumer countries to be discussed, and for greater understanding to be built between producer and consumer countries. Specifically, this proposed forum would enable implementation of CITES *Decision 14.138* which requests Parties to decide which agarwood products should be under CITES controls, *Decision 14.139* on standardized units of reporting, and *Decision 14.140* regarding production of a glossary of terms specific to agarwood products in trade and relevant terminology.

2). Monitoring of border checkpoints, particularly Dubai Airport, for CITES-listed specimens already involves co-operation between CITES, Customs and Quarantine officials. This co-operation should be strengthened, and where possible under UAE law with regard to the existing CITES Reservation, personal luggage should be monitored as a mode of covert import and re-export for commercial quantities of agarwood products coming through the UAE.

3). To enable ease of monitoring and data analysis, standard units should be used by the UAE CITES Management Authorities for agarwood products and particularly mass/volume<sup>2</sup>. It is suggested to use kg for wood chips and powder, and litres for oil and other liquid perfume products. The UAE's efforts in this regard should be co-ordinated with other Parties in meeting the recommendations of CITES *Decision 14.139*.

4). Following more specific HS Codes in use by Customs since July 2006, the cross-referencing of data sets held by Dubai Customs and the UAE CITES Authorities will allow for a comparative analysis of agarwood trade data. This cross-checking should provide a broader understanding of the UAE's agarwood trade profile, and how to further improve monitoring of this trade.

5). The UAE has remarked publicly on the need for producer and consumer countries to work together on management of the global agarwood trade, which is to be commended. Such collaboration should also involve re-exporting countries, such as Singapore, to ensure complete coverage of the trade chain. With regard to the continued predominance of agarwood products claimed to originate from Cambodia and India in the UAE retail market, and the reports of seizures of cargoes coming from India without CITES permits, it is recommended that the UAE communicates directly with these range States to try to resolve the current situation and looks for areas of mutual co-operation.

7). In the UAE itself, the outreach by the CITES Authorities to the agarwood industry has resulted in an increase in registered traders. Such interactions are encouraged to continue, and for means to be explored to use the market demand as a component of producer-consumer co-operation towards legal and sustainable trade practices, and the raising of further awareness of CITES regulations. By taking an inclusive and consultative approach, the relationship between conservation and sustainable trade concerns can be further explored with agarwood industry leaders in the private sector in order to maintain their business interests for the long term.

8). Following CITES *Decision 14.137*, the UAE is encouraged to work with other trading Parties and the CITES Secretariat to produce identification materials for all forms of traded agarwood products under CITES control.

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<sup>2</sup> The UAE's new computerized CITES data management software can be structured to avoid any confusion with units in future (UAE CITES Management Authority, in litt. to TRAFFIC, 9 July, 2008)

## BACKGROUND AND INTRODUCTION

Globally there are two major centres of agarwood consumption, north-east Asia and the markets of Taiwan, Japan, and the Republic of Korea, and west Asia or the “Middle East” which centres on the countries of the Arabian Peninsula. The uses of this unique resinous wood include medicinal, religious and cultural purposes in various societies across Asia. No agarwood-producing species is known to grow west of India, and yet it has been a traded item within Arab-speaking commerce for over 2000 years, being sourced from both India and further east into South-east Asia.

Known in Arabic as *oudh*, agarwood is an important part of life in the UAE for Emiratis as well as Arabic culture in general. It is used as a traditional aromatic and perfume in many forms: from high grade wood chips burnt by Sheikhs to honour their guests, perfuming personal garments before special occasions and in preparation for prayer, through to providing general household fragrance. It is sold in raw form (wood chips and pieces), as oil (both pure and blended with other fragrances), as perfume products, and in various forms using small shavings of wood mixed with other fragrant ingredients.



James Compton/TRAFFIC

**Many UAE perfume companies have developed their signature aromas using agarwood oil, often in very low concentrations**

Within a long tradition of Arabic perfumery *oudh* can be traced in ancient literature as holding a special value among other scents. One of the first references of agarwood in the Song of Songs, among descriptions of the perfumes a bride uses. From the *hadiths* there are descriptions that the Prophet Mohammed liked to use perfumes (Behrens, 1999) and used *oudh* to incense his clothes, while from the narratives of the Islamic explorer Ibn Battutah there are descriptions of the extensive use of perfumes by the Arab people in the 13th Century (Genders, 1972). In the famous stories of “A Thousand and One Nights” there is a short description on the scents used to perfume the houses and palaces on special occasions, including *oudh*.

The main uses of agarwood / *oudh* products by UAE and ethnic Arab customers can be summarised as follows:

| Types of Use               | Product type                                                                                                                                                                                                        |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Body Fragrance             | <ul style="list-style-type: none"> <li>▪ Agarwood oil / <i>Dihn al oudh</i></li> <li>▪ Arabian perfumes (oil based)</li> <li>▪ Arabian perfumes, French-style perfumes</li> </ul>                                   |
| Clothes Fragrance          | <ul style="list-style-type: none"> <li>▪ Agarwood chips / <i>oudh</i> , <i>bakhoor</i></li> <li>▪ Scented chips</li> <li>▪ Arabian perfumes in sprays</li> <li>▪ Arabian perfumes, French-style perfumes</li> </ul> |
| House fragrance            | <ul style="list-style-type: none"> <li>▪ Agarwood chips / <i>oudh</i> , <i>bakhoor</i></li> <li>▪ Scented Chips</li> <li>▪ Sprays</li> </ul>                                                                        |
| To receive honoured guests | <ul style="list-style-type: none"> <li>▪ Agarwood chips / <i>oudh</i> (high qualities are usually used for special occasions, weddings etc)</li> <li>▪ <i>Bakhoor</i></li> <li>▪ Scented chips</li> </ul>           |

Source: TRAFFIC research

Agarwood, either as pure oil or incense, is an important fragrance for personal devotion, applied on the hair, behind the ears, neck, nostrils, and clothes. Its high price is considered as an indicator of its value as a precious and luxurious product, and the quality of the aroma can be viewed as an indication of status and prestige (Behrens, 1999; Kanafani 1979). Burning agarwood chips in an open brazier is considered an essential customary practice to honour the visit of guests, interwoven into UAE nationals' lives. In summary, *oudh* is seen as a part of the heritage as well as the modern national identity of the UAE.

The UAE is an important import, consumer and re-exporting country within the Middle East agarwood market, and is connected to other agarwood-consuming countries in the region including Saudi Arabia, Kuwait, Bahrain, and Qatar.

The persistent and culturally embedded nature of demand for agarwood by end-consumers and commercial interests in the UAE, as well as concerns over the sustainability of supply, have led to the national CITES Authorities recognising the importance of a well-managed trade. In August 2002, at the CITES Asia Regional Meeting, the UAE Government called for producer consumer co-operation in managing the global agarwood trade, at the time when only one species *Aquilaria malaccensis*, was listed in CITES Appendix II. In 2004, when more species were listed under CITES, the UAE stated its public support for agarwood conservation and sustainable use, but also its concerns over information gaps regarding wild populations, and the need to consider personal effects exemptions. The UAE subsequently took out a CITES Reservation on *Aquilaria* spp. and *Gyrinops* spp. in January 2005.

The research for this report was carried out under the auspices of CITES Decision 13.63 arising from the 13<sup>th</sup> Conference of the Parties to CITES, which recommended that:

*Further field research should be conducted on trade dynamics, including in the major importing and re-exporting States and territories of Southeast Asia, East Asia and the Middle East.*

A deeper understanding of the cultural demand from the UAE, as an indicator for the broader Middle East market for agarwood, has been lacking up until now. It is hoped that this report will provide additional insights into how this trade can be better regulated and managed for the benefits of both consumers and producers.

## **Regulatory Framework in the UAE**

The UAE was an early signatory to CITES, first acceding on 21 November 1974, and remaining Party to the Convention until 27 January, 1988, when it withdrew. However, this was a temporary situation, as the UAE became a Party to CITES again on 9 May 1990.

**National Legislation:** The legal framework with regards to the implementation of CITES in the UAE is governed by Federal Law No.11 (2002) Concerning Regulating and Controlling the International Trade in Endangered Species of Wild Fauna and Flora. This is implemented via the Resolution of the Council of Ministries No. 22 (2003). On the basis of these legal provisions, the UAE has been assessed as having legislation that complies with Category 1 of the CITES National Legislation Project, i.e. that it has “legislation that is believed generally to meet the requirements for implementation of CITES”.

Under Federal Law No. 11, there are several clauses particularly relevant to the implementation of CITES controls for agarwood trade by the UAE. These include:

### *Article 3, Clause 1 – under General Rules*

The import, transit and transshipment, export, re-export and introduction from the sea of any Specimen of the species listed in the (CITES) Appendices is prohibited when it does not follow the legal provisions.

### *Article 6, Clause 1 and 3 – under International Trade and Documents*

It shall be impermissible to Export or re-export any specimen from the species included in the (CITES) Appendices unless obtaining prior permission.

It is prohibited to import any sample from the species included in the (CITES) Appendix 2 unless prior export or re- export permit is obtained.

### *Article 18 – regarding registration of trade participants*

Each practitioner of an activity included in the provisions of this law shall apply for registration with the management authority according to the terms stated in a ministerial decree and the this decree shall identify the type, form of application, the conditions and information necessary for registration.

*Article 26* describes penalties for contravening the regulations for trade in Appendix II specimens, which include provisions for 3 months in prison, and fines between AED5000-30,000.

Article 27 describes penalties for non-registration of trade participants

Whoever bestowed, sold, presented for sale, or displayed any of the specimens included in the appendices prior being registered in accordance with Article (18) of this law shall be imprisoned for a period not less than three months, and levied a fine of minimum (5000) five thousand dirham, and not exceeding (30,000) thirty thousand dirham, or any of these punishments.

**International Trade Regulations:** For species listed in CITES Appendix II, like those contained in the agarwood producing genera *Aquilaria* and *Gyrinops*, Articles 1, 2 and 6 of Federal Law No. 11 prescribe the following documents as required by the UAE CITES Management Authority to monitor international trade:

- **Import into the UAE:** A prior presentation of an export or re-export permit from the last re-exporting country is needed in order to obtain permission to import. For CITES Appendix II-listed species, such as agarwood, prior issuance of a CITES import permit by the UAE is also required under Federal Law No. 11.
- **Export – Re-export from the UAE:** prior issuance of an export or re-export (as pertains to agarwood) permit from the Management Authority is required.

## **Responsible Authorities for Implementation and Enforcement of CITES**

Two CITES Management Authorities are set with the responsibility of issuing and verifying CITES permits and monitoring the trade of CITES-listed species. The focal agency at national level is the Federal Environment Agency, which also plays the CITES Management Authority function for the emirate of Abu Dhabi. The second CITES Management Authority is the Ministry of Environment and Water (MoEW – note that formerly this CITES MA was under the ministry previously known as the Ministry of Agriculture and Fisheries [MAF]) in Dubai, which has responsibility for all Emirates except Abu Dhabi (as stated in the Resolution of the Council of Ministries No. 22 [2003]). The CITES Scientific Authority for the UAE is the Environment Agency – Abu Dhabi.

Under current procedures, annual reports summarising CITES permitted-transactions for import and re-export of agarwood are compiled by the Environment Agency in Abu Dhabi for submission to the CITES Secretariat and for entry into the CITES Trade Database maintained by UNEP-WCMC.

Customs and Agricultural Quarantine [under the Ministry of Environment and Water, formerly Ministry of Agriculture and Fisheries] are assigned to assist in the implementation of the law at the points of international entry and exit. For Agarwood, most of the import and re-export occurs through the port of Dubai. Two focal points within the CITES Unit team at MoEW in Dubai are assigned with responsibility for CITES-listed plants and animals, respectively.

Customs is in charge of setting the Custom Import Tariff and allocating commodities trading statistics based on the Harmonised System of Codes. If the Customs officer detects agarwood imports, they are required to charge a duty/tariff at 5% of the product's total value (Customs official, *pers. comm.* to TRAFFIC, October 2005). In such cases, reputable agarwood trading companies are called upon to provide expert advice in estimating the product's monetary value.

However, UAE CITES officials are concerned that regulating and monitoring agarwood trade is still considered a minor issue among the breadth of Customs priorities, bearing in mind the magnitude of goods imported and exported from the UAE. Building capacity of Customs personnel, for example in identifying CITES-listed species and products such as agarwood, is an ongoing task of the UAE CITES Authorities.

In July 2006, however, a circular was issued by the Department of Dubai Customs, pursuant to the Ministry of Environment and Water, specifically regarding regulation of agarwood trade (Customs Notice No. 5/2006), which has brought renewed attention to the issue, including the role of Customs in assisting with implementation of CITES import and re-export controls.

Quarantine officers also play a role in examining cargoes which have the required CITES documentation in order to allow the import or re-export of agarwood products (under Resolution of the Council of Ministries No. 22, 2003).

### **Current UAE Reservation on *Aquilaria/Gyrinops* spp.**

At the 13<sup>th</sup> Conference of the Parties to CITES in 2004, Indonesia proposed listing the remaining species of the genus *Aquilaria*, along with the genus *Gyrinops*, in Appendix II. After consideration of the proposal, the UAE issued an Information Document to CoP13 (CoP13 Inf. 54, see full document in Annex II of this report) which noted its commitment to the principles of sustainable use and mutual benefit which can be accrued by both producer and consumer states alongside long-term species conservation. The UAE also acknowledged the efforts of Indonesia to protect Agarwood trees. However, the document also raised its concerns about several issues to do with implementation of the proposed listing. These concerns included:

- Limited information about wild population status in range States;
- Difficulty of controlling trade in various forms of agarwood;
- The strong cultural and religious connection with agarwood use;
- The need to consider a quantitative limit for personal effects exemptions;
- Existing Decisions arising from CoP12 which still required a lot of work to be done;
- Previous calls for producer-consumer co-operation by the UAE which had not yet been acted upon, and the need for formal consultation between trading Parties.;
- The possibility of imbalances in the overall trade if some countries chose to exercise the right to take out a Reservation if Indonesia's proposal was adopted by CoP13.

During the CoP, consultations between agarwood range States and their trading partners were held to discuss these concerns raised by the UAE. Subsequently, although the proposal by Indonesia was adopted by majority vote at CoP13, the UAE, along with Kuwait, Qatar and the Syrian Arab Republic, took out a Reservation against the listing of *Aquilaria* spp. and *Gyrinops* spp. This came into force on 12 January 2005, and meant that these four consumer States would effectively trade as a non-Party to CITES for any continuing trade in *Gyrinops* spp. and all *Aquilaria* species except *Aquilaria malaccensis*, which had been listed in Appendix II since 1995.

However, the UAE has continued to monitor all commercial agarwood shipments imported and exported from the UAE, adhering to the spirit of Resolution Conf. 4.25 (which has since been revised at CITES CoP14), which:

CALLS on the Parties having entered reservations nevertheless to maintain and communicate statistical records on trade in the species concerned, as part of their annual reports, so that international trade in specimens of these species may be properly monitored;

The data collected on agarwood trade has been regularly communicated as part of the UAE's CITES Annual Reports, and has provided an increasingly useful data set for this report and other analyses.

No priority effort, however, has been applied to regulating agarwood transported as personal luggage. Although some seizures and confiscations have occurred at Dubai Airport, no prosecutions have taken place (Ministry of Environment and Water, *pers. comm.* to TRAFFIC, November 2007).

## **METHODS**

Under contract to the CITES Secretariat, TRAFFIC worked in collaboration with the CITES Authorities of the United Arab Emirates, The Emirates Wildlife Society and WWF to compile this report which describes the trade dynamics and market characteristics of agarwood in the UAE.

Due to the lack of written sources and past studies regarding the agarwood market in the UAE, an exploratory market-research oriented approach using qualitative analysis was applied aiming to obtain important information on unidentified issues of the market dynamics (following Kumar *et.al.*, 2002).

The research was divided into two different elements:

***a) The collection of secondary data:***

Secondary information was derived from official trade statistics, previous TRAFFIC reports, web-based research on various companies, newspaper and relevant published articles.

***b) The collection of primary data:***

Primary data was obtained by means of site visits to retail outlets and interviews with industry participants in 2005, 2006 and 2007, primarily focused on the major market hub of Dubai. The aim of the interviews was to obtain information from all levels of stakeholders.

The stakeholder groups that were identified are: government personnel, traders (including salesmen, branch managers, and company representatives) and end-consumers.

- **Market survey and traders' interviews**

During the research, retail and wholesale shops were visited in different locations of Dubai in order to obtain a more indicative image of the local trade. During the shop visits, apart from observations, researchers conducted semi-structured interviews with the traders. In order to obtain the information needed, questions were presented under the identity of an academic researcher.

This approach proved to be largely successful, since traders generally seemed to be very sceptical about giving information for fear of aiding their competitors. At certain cases multiple visits took place as a way of establishing one kind of trust between the researcher and the interviewees.

Three types of commercial trade location were surveyed.

1. Shops and outlets in and around major shopping malls:
    - 1.1. Retail trading with local buyers, GCC customers and tourists;
    - 1.2. A small number of shops trading wholesale as well as retail.
  2. Bazaar Stores:
    - 2.1. Usually smaller premises in traditional bazaars and spice markets in Dubai, these venues have long been the typical location for agarwood/*oudh*, with the majority of the vendors dealing in both retail and wholesale quantities. Lower agarwood qualities and direct bargaining are typical bazaar characteristics.
    - 2.2. Retail: The majority of their customers are from older age groups or with relatively lower purchasing power, as many of the traders stated. For example, many older women buy agarwood / *oudh* powder in order to make home-made *bakhoor*.
    - 2.3. Wholesale: Mainly customers from other GCC countries
  3. Specialist sections within large department stores:
    - 3.1. Agarwood/*oudh* is also sold within large department stores that are located in the larger Dubai shopping malls, and also within fabric shops and tourist stores. These venues usually offer medium-to-low qualities of agarwood/*oudh* and a small range of perfumes. There are also several hotels in Dubai that offer agarwood products in their retail sections.
- **Company Representatives:**

Several representatives from large, medium and small companies were contacted, from which only four accepted to meet with the researchers.
  - **Governmental Personnel:**
    - Officials from the CITES Authorities of the UAE (in Dubai and Abu Dhabi).
    - One official from Dubai Customs
    - Two officials from the Agricultural Quarantine (Dubai airport)
  - **Consumers:**

In order to obtain a larger sample and a larger rate of responses a written questionnaire lasting 7-15 minutes was employed. This focused on the nature of agarwood, its products and uses by UAE or other GCC nationals of different age and sex, thus excluding other consumer groups.

## RESULTS

### Official data on imports and re-exports

Two official datasets for the imports and re-exports of agarwood were obtained and studied; partial records the Customs foreign trade statistics (2003-2005) and the CITES permit database of the UAE as communicated in CITES Annual Reports.

### Customs Foreign trade statistics

The following table shows the categories of the Customs Tariff, including changes in levels of detail since 2003, under which agarwood products are classified. The figures for international trade under HS Code 1211.9030 for 2003-2004 can be seen in Annex I of this report.

**Table 1:**  
**HSC classification of agarwood under the National Tariff**

| <b>Raw Agarwood</b> |                                                                                                                                                                                                                                              |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Prior to 2003       | Category 1211.90 [Plants and parts of plants (including seeds and fruits), of a kind used primarily in perfumery, in pharmacy or for insecticidal, fungicidal or similar purposes, fresh or dried, whether or not cut, crushed or powdered]. |
| After 2003          | Category: 1211.90 30 (Chips and pieces of aloeswood, sandalwood and other aromatic woods)                                                                                                                                                    |
| 1-Jul-06            | Category 1211.9030 Aloes (wood) resinoids                                                                                                                                                                                                    |
| <b>Agarwood oil</b> |                                                                                                                                                                                                                                              |
| Prior 2003          | Category: 3301.30 (Resinoids)                                                                                                                                                                                                                |
| After 2003          | Category: 3301.3010 (Aloeswood resinoids)                                                                                                                                                                                                    |
| 1-Jul-06            | Category 3301.3010 (Aloes oil)                                                                                                                                                                                                               |
| 1-Jul-06            | Category 3303.0090 (Oriental perfumes packed in containers for retail sale)                                                                                                                                                                  |

Sources: Customs National tariff 2002 and 2004, Customs Notice No. 5/2006

### CITES-UAE permits database

Following a reorganisation of the UAE CITES administration in 2003, the CITES Management Authorities started to systematically monitor and record trade in CITES-listed species after 2004, following the establishment of an appropriate system for issuing CITES permits. The data collected for the years 2004-2006 is in Appendix 3 of this report.

### Data Limitations

While the available official data provide an important insight into the trade patterns for agarwood in and out of the UAE, it cannot provide for robust conclusions on volumes and trends of the overall agarwood trade. The main reasons for this can be summarised as:

- Customs: Lack of an HSC category exclusively for raw agarwood products prior to July 2006 (after which data were not yet available to be considered in this report);
- CITES: Lack of available recorded data over a period of five years or more;

## Trade dynamics

**Figure 1: General Trade flows into, and out from, the UAE, based on reported CITES Trade Data held at UNEP-WCMC for the period 1995-2006**



### Supplies from Range States

According to UAE figures submitted to the UNEP-WCMC CITES Trade Database, Indonesia and Malaysia are the major range States reported as countries-of-origin for agarwood imported into the UAE. There are minor levels of trade involving China and Thailand as reported countries-of-origin. Agarwood cargoes arrive in Dubai from three main points of export: Singapore, India and Malaysia. Agarwood from Indonesia, an important range State, largely arrives in the UAE as re-export from Singapore.

There are agarwood products, particularly wood chips, sold in the domestic UAE market with attributed country-of-origin Cambodia, India, Lao PDR, Myanmar, and Viet Nam. However none of these range States have ever appeared in the CITES trade database as sources for agarwood in trade to the UAE.

During market research conducted in the UAE, products from a wider range of range States were claimed as countries-of-origin at the point of sale. The table below shows the number of shops (out of a total number of 31 shops visited in 2005 and 10 shops in 2007) where agarwood products were sold claiming to be from the following range States:

**Table 2:**  
**Number of shops visits with products by attributed country-of-origin**

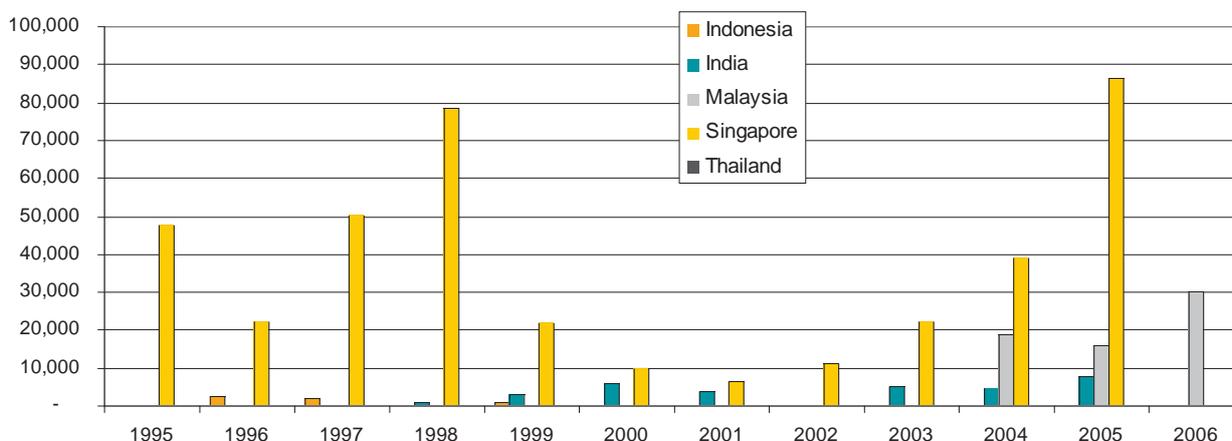
| Range States (attributed Countries of Origin) | Number of shops (n=31) holding stock (2005) | Number of shops (n=10) holding stock (2007) |
|-----------------------------------------------|---------------------------------------------|---------------------------------------------|
| Cambodia                                      | 29                                          | 10                                          |
| Malaysia                                      | 26                                          | 3                                           |
| Indonesia                                     | 21                                          | 2                                           |
| India                                         | 17                                          | 8                                           |
| Myanmar                                       | 14                                          | 3                                           |
| Laos                                          | 8                                           | -                                           |
| Viet Nam                                      | 3                                           | -                                           |
| Thailand                                      | -                                           | 1                                           |

Source: TRAFFIC Research, 2005-2007

Among the traders and vendors interviewed, a common conclusion was that while Malaysia and Indonesia were the bulk supply countries, ‘Cambodian’ agarwood was one of the most popular in the market. It is likely that many of these attributed countries-of-origin function as ‘brand names’ for agarwood of particular aroma, appearance and price structure – rather than reflecting accurately the actual country of origin.

A comparison of records from the UNEP-WCMC CITES Trade Database over the period 1995-2006, reported by all countries of export/re-export, *versus* reported imports into the UAE is below. It should be noted that these data are based on the UAE’s approved CITES permit data, rather than actual total trade (UAE CITES Management Authority, *in litt.* to TRAFFIC, 9 July 2008)

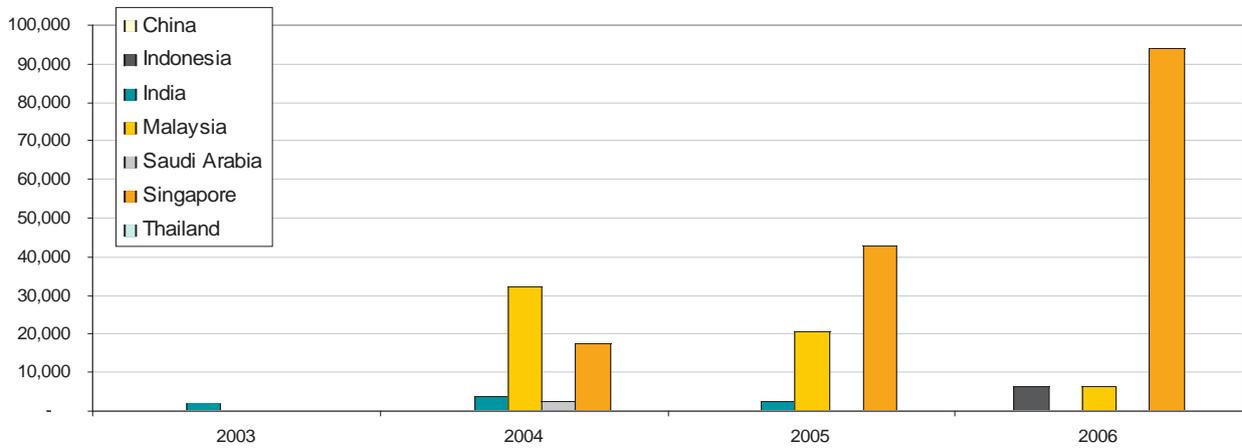
**Figure 2:**  
**Agarwood (all species) chips (in kg) (re)-exported to UAE (1995-2006), as reported by (re-) exporting countries**



Source: UNEP-WCMC CITES Trade Database

**Figure 3:**

***Aquilaria* and *Gyrinops* chips (in Kg) imported by UAE, per (re-)exporting country and as declared by UAE (1995-2006)**

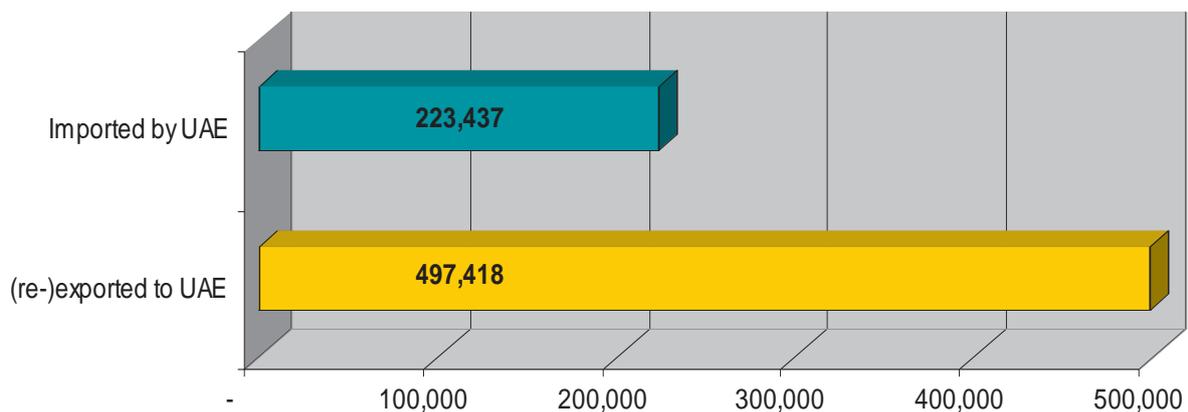


Source: UNEP-WCMC CITES Trade Database

Examining 1995-2006 totals for the most commonly traded product type, wood chips, there is a discrepancy of over 250t between reported exports to the UAE and the UAE’s own reported imports – largely due to the fact that 2004 was the first complete Annual Report submitted by the UAE for inclusion in the UNEP-WCMC CITES Trade Database<sup>3</sup>.

**Figure 4:**

**Comparison between Agarwood chips (all *Aquilaria* in kg<sup>4</sup>) reported as imported by UAE and reported as (re-)exported to UAE (1995-2006).**



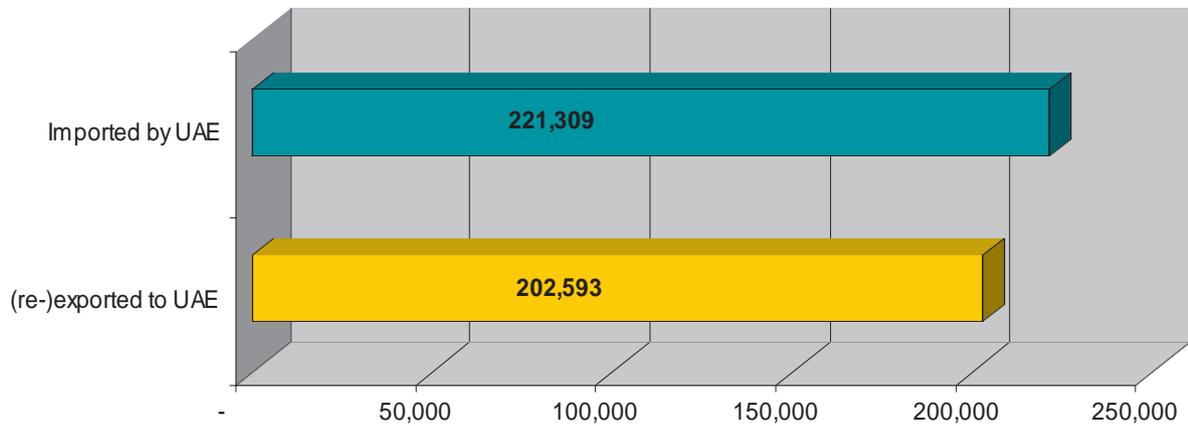
Source: UNEP-WCMC CITES Trade Database

<sup>3</sup> In the period 1995-2004, UAE CITES permit data was entered manually, and in some cases permit records were not available when Annual Reports were compiled. This has been resolved since 2004 (UAE CITES Management Authority, in litt. to TRAFFIC, 9 July, 2008)

<sup>4</sup> In addition to all *Aquilaria* imports, the UAE reported imports of 7396kg of *Gyrinops* spp. in 2006.

If the data comparison for reported trade in wood chips is limited to the period 2004-2006, the discrepancy is reduced to less than 20t. Other lesser discrepancies are likely due to non-uniform times of trade data submission by various CITES Parties.

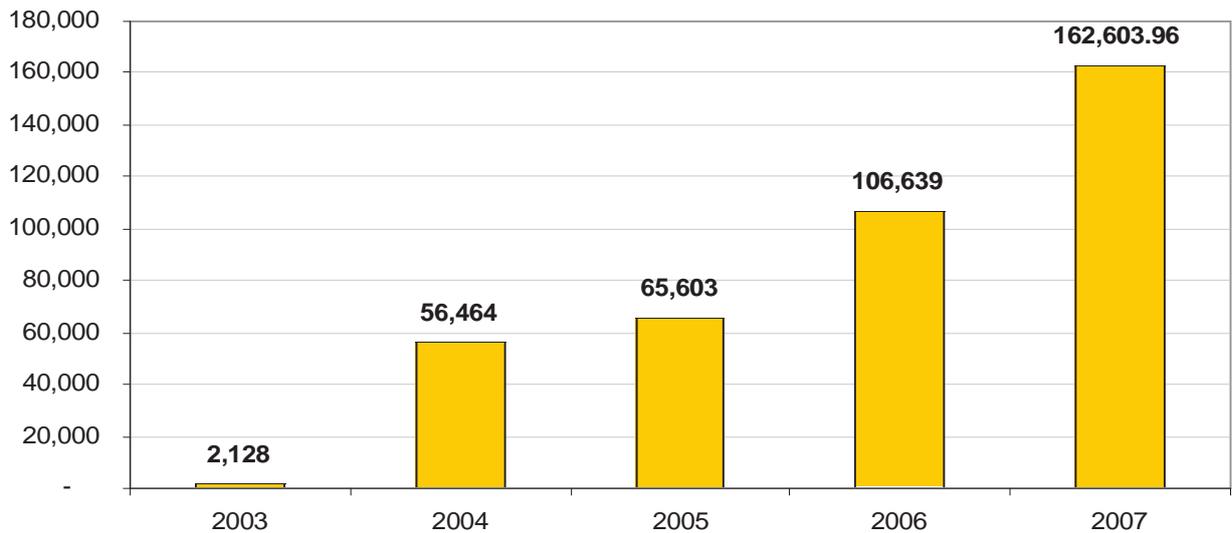
**Figure 5:**  
**Aquilaria Chips (in kg) (2004-2006)**



Source: UNEP-WCMC CITES Trade Database

Overall, the trend in reported imports by the UAE is increasing with regard to agarwood chips, as illustrated below:

**Figure 6:**  
**Aquilaria & Gyrinops chips (in Kg) imported by UAE, as declared by UAE (1995-2007)**



Source: UNEP-WCMC CITES Trade Database

## Direct Trade versus Entrepots

Based on the UAE CITES permit records, combined with the responses from the traders and salesmen interviewed, it is clear that Singapore functions as the major trade hub for agarwood cargoes entering the UAE. The majority of the traders interviewed mentioned Singapore as their main source of agarwood procurement, although reports of trading directly with range States were also common [particularly Indonesia, Malaysia and Thailand (through Bangkok)]. Several interviewees, with reference to Singapore, mentioned that the same merchants supply several different companies in the UAE, and that these suppliers are ethnic Chinese traders. Bangkok was reported to function as a secondary trade hub for agarwood, with four interviewed vendors mentioned it as a point of acquisition. These reports concur with direct observations and interviews conducted by TRAFFIC with trade participants in both Bangkok and Singapore in the period 2004-2008.

The next table shows the geographic location of agarwood acquisition according to the interviewees:

**Table 3:**  
**Geographic Location of agarwood procurement**

| Geographic Location for acquisition                      | Number of shops (n=31) |
|----------------------------------------------------------|------------------------|
| Singapore                                                | 22                     |
| Range Countries (e.g. Indonesia, Malaysia, Thailand etc) | 18                     |
| Within UAE (mainly Dubai)                                | 6                      |
| Bangkok                                                  | 4                      |

Source: TRAFFIC Research 2005



James Coppton/TRAFFIC

**Agarwood awaiting re-export from Singapore**

Singapore's standing as the preferred place of procurement was reportedly due to its established role as a trade hub, hosting a large number of traders and available products. During the interviews no explanations were given on the degree of the contemporary ease of obtaining agarwood from Singapore compared with direct supply from range States.

Trade data from the UNEP-WCMC CITES Trade

Database also bears out the importance of Singapore as a primary place of re-export to the UAE. The following tables illustrate the trade dynamics between Singapore and the UAE, based on the period 2004-2006 for which CITES trade records from both countries have been submitted to UNEP-WCMC.

**Table 4:**

**Country of Origin of *Aquilaria* spp. products (in kg) imported by the UAE from Singapore, as declared by UAE (2004-2006)**

| Sum of (Re-) Export Quantity |                   | Origin         |               |            |            |                |
|------------------------------|-------------------|----------------|---------------|------------|------------|----------------|
| Taxon                        | (Re-) Export Term | Indonesia      | Malaysia      | Thailand   | Viet Nam   | Grand Total    |
| <i>Aquilaria filaria</i>     | chips             | 22 593         | 257           |            |            | 22 850         |
| <i>Aquilaria malaccensis</i> | chips             | 277 158        | 94 743        | 155        | 273        | 372 330        |
|                              | logs              | 1046           |               |            |            | 1046           |
|                              | oil               | 6              |               |            |            | 6              |
|                              | powder            | 5867           |               |            |            | 5867           |
|                              | timber            | 2609           | 47            |            |            | 2656           |
|                              | timber pieces     | 177            |               |            |            | 177            |
| <b>Grand Total</b>           |                   | <b>309 455</b> | <b>95 047</b> | <b>155</b> | <b>273</b> | <b>404 930</b> |

Source: UNEP-WCMC CITES Trade Database

**Table 5:**

**Origin of *Aquilaria* spp. products (in kg) (re-)exported by Singapore to the UAE, as declared by Singapore (1995-2006)**

| Count of (Re-) Export Source |                   | (Re-) Export Source |          |             |
|------------------------------|-------------------|---------------------|----------|-------------|
| Taxon                        | (Re-) Export Term | Pre-Convention      | Wild     | Grand Total |
| <i>Aquilaria filaria</i>     | chips             | 2                   | 1        | 3           |
| <i>Aquilaria malaccensis</i> | chips             | 4                   | 4        | 8           |
|                              | logs              | 1                   |          | 1           |
|                              | oil               |                     | 1        | 1           |
|                              | powder            | 1                   |          | 1           |
|                              | timber pieces     | 1                   |          | 1           |
| <b>Grand Total</b>           |                   | <b>9</b>            | <b>6</b> | <b>15</b>   |

Source: UNEP-WCMC CITES Trade Database

Although *Aquilaria malaccensis* was listed in Appendix II in 1995, Singapore exported 12 cargoes of *A. malaccensis* between 2004-2006 which were declared as pre-Convention stock, and similarly for 3 cargoes of *A. filaria*.

**Table 6:**

**Source of *Aquilaria spp.* products (re-)exported by Singapore, as declared by Singapore (number of cases) (2004-2006)**

| Count of (Re-) Export Source |                   | (Re-) Export Source |          |             |
|------------------------------|-------------------|---------------------|----------|-------------|
| Taxon                        | (Re-) Export Term | Pre-Convention      | Wild     | Grand Total |
| <i>Aquilaria filaria</i>     | chips             | 2                   | 1        | 3           |
| <i>Aquilaria malaccensis</i> | chips             | 4                   | 4        | 8           |
|                              | logs              | 1                   |          | 1           |
|                              | oil               |                     | 1        | 1           |
|                              | powder            | 1                   |          | 1           |
|                              | timber pieces     | 1                   |          | 1           |
| <b>Grand Total</b>           |                   | <b>9</b>            | <b>6</b> | <b>15</b>   |

Source: UNEP-WCMC CITES Trade Database

Based on the UNEP-WCMC CITES trade database, all recorded imports into the UAE of agarwood re-exported from Singapore were either reported as country-of-origin Indonesia or Malaysia, with both countries exporting lesser amounts as direct trade with the UAE than what is re-exported via Singapore.

### Product types

CITES permit data show the majority of agarwood arriving in the UAE takes the form of wood chips, with other categories of logs, powder, timber and timber pieces also appearing in the trade records in lesser quantities.

**Table 7:**

**Re-)exported to the UAE (*Aquilaria* species, 1995-2006), as declared by (re-) exporting countries**

|                   |                   | Country of (re-) export |               |               |                |           |                |
|-------------------|-------------------|-------------------------|---------------|---------------|----------------|-----------|----------------|
| (Re-) Export Term | (Re-) Export Unit | Indonesia               | India         | Malaysia      | Singapore      | Thailand  | Grand Total    |
| Chips             | kg                | 5756                    | 31 452        | 65 022        | 395 180        | 9         | 497 418        |
| Logs              | kg                |                         |               |               | 1046           |           | 1046           |
| Oil               | kg / litre        |                         |               | 112           | 6              | 1         | 119            |
| Powder            | kg                |                         | 5600          |               | 5867           |           | 11 467         |
| Timber            | kg                |                         | 787           |               | 2656           |           | 3443           |
| timber pieces     | kg                |                         |               |               | 177            |           | 177            |
| <b>Total</b>      |                   | <b>5756</b>             | <b>37 839</b> | <b>65 022</b> | <b>404 930</b> | <b>11</b> | <b>513 555</b> |

Source: UNEP-WCMC CITES Trade Database

Agarwood oil seldom appears in CITES trade data in terms of reported exports to, or reported imports by, the UAE – with the exceptions being small quantities from Pakistan and Singapore, and a reported export of 112 litres by Malaysia to the UAE in 2006.

Import records were obtained for agarwood oil from the Dubai Customs database for 2003-2004 under the code for Aloeswood Resinoids (HSC: 3301.3010). The table below shows the quantities of oil reported as imported to the UAE in 2003 and 2004 by exporting countries.

**Table 8:**

**Agarwood oil volumes of import by exporting country**

| Exporting Countries | Reported Imports (Kg) |            |
|---------------------|-----------------------|------------|
|                     | 2003                  | 2004       |
| France              | 10                    | 477        |
| India               | 10                    | -          |
| Indonesia           | 46                    | -          |
| USA                 | 15                    | -          |
| <b>Total</b>        | <b>81</b>             | <b>477</b> |

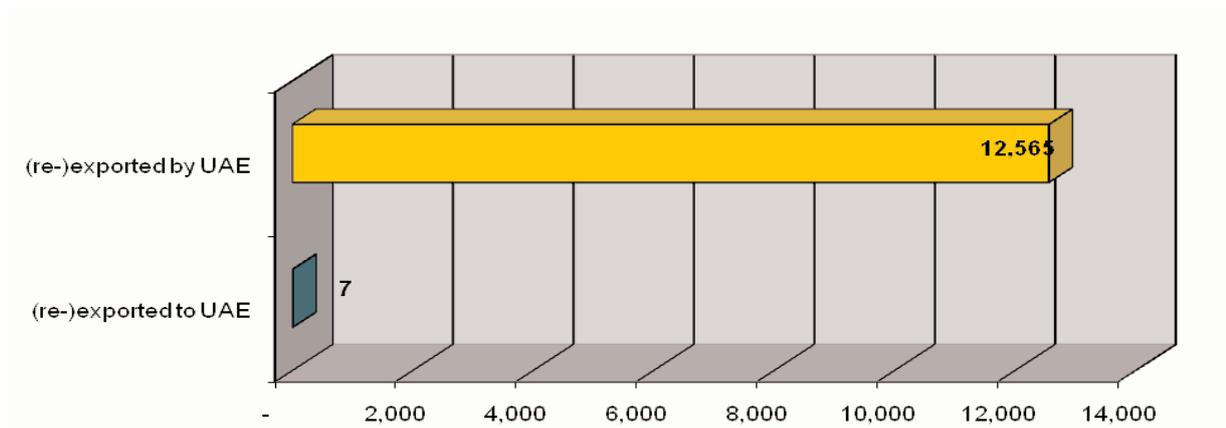
Source: Dubai Customs

The appearance of France and the USA in these Customs records is unusual, although France reported imports of 60kg of agarwood powder and 2 litres of agarwood oil in 2005 and 2006 respectively in its CITES Annual Reports. Based on discussions with UAE industry participants, it was reported as possible that the French oil could be reconstituted oil (containing other aromatic plant oils such as sandalwood, laburnum and patchouli), while the US oil could possibly be synthetic agarwood oil from aroma-chemical manufacturers.

However, the UAE is a significant re-exporter of agarwood oil (and products containing agarwood oil in various concentrations), reporting 12,565kg of re-exports in the period 2004-2006, mostly to Saudi Arabia. In addition, finished products containing various concentrations of agarwood oil accounted for re-exports of 255 litres of oil during that same period. There were only 7kg of imports reported by the UAE in that three-year period (from Singapore and Thailand), as well as 5 litres imported from Pakistan, while Malaysia reported exports of 112 litres of agarwood oil to the UAE in 2006. UAE's re-exports are noted as country of origin Malaysia, but it is important to note that such quantities may indicate a significant amount of processing from wood to oil done in the UAE, or alternatively a large amount of unreported imports of agarwood oil (see Section 10.2 for further discussion on the significance of this segment of the trade).

**Figure 7:**

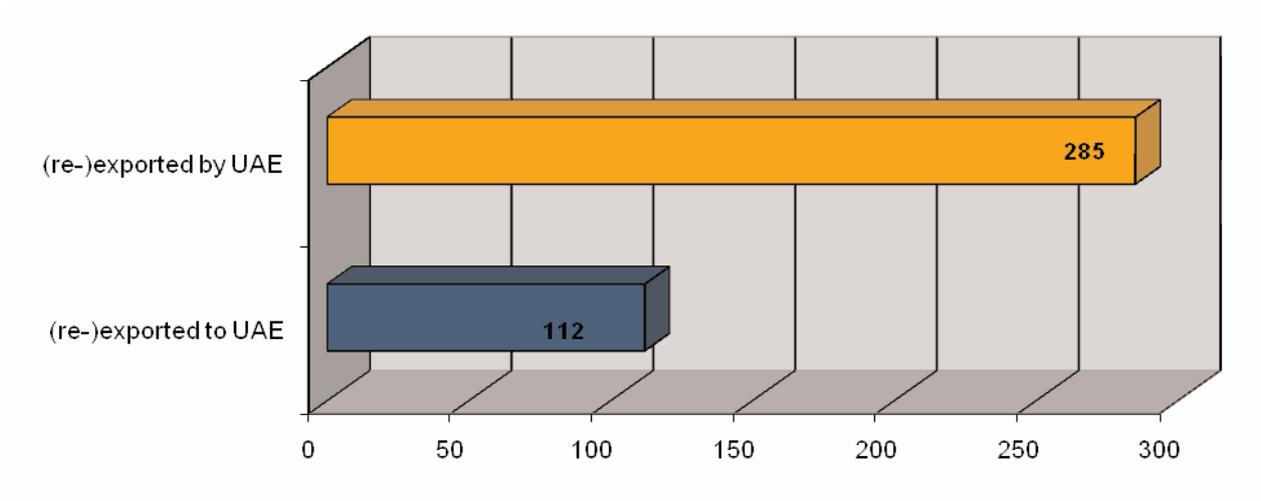
**Re-exports of agarwood oil (and oil-based perfume products) (in kg) reported by the UAE compared to reported (re-)exports of agarwood oil to the UAE**



Source: UNEP-WCMC CITES Trade Database

**Figure 8:**

**Re-exports of agarwood oil (and oil-based perfume products) (in litres) reported by the UAE compared to reported (re-)exports of agarwood oil to the UAE**



Source: UNEP-WCMC CITES Trade Database

During TRAFFIC’s market research in the UAE, the following variety of major agarwood product types were found on sale classified by attributed countries-of-origin:

**Table 9:**  
**Product types by Attributed Country-of-origin found in retail outlets**

| Attributed Country of Origin | Product Type             |
|------------------------------|--------------------------|
| India                        | Oil/chips                |
| Cambodia                     | Chips/oil                |
| Malaysia                     | Chips/oil                |
| Indonesia                    | Chips/oil                |
| Laos                         | Chips/oil (few examples) |
| Viet Nam                     | Chips (few examples)     |
| Myanmar                      | Chips/oil                |
| Thailand                     | Chips (few examples)     |

Source: TRAFFIC Research 2005-2007

### **Artificially propagated or cultivated sources**

At least one company operational in the UAE claimed it provided the market with plantation-grown agarwood, as well as agarwood oil derived from this source. However, figures from the UAE CITES permit records, no imports of agarwood products are recorded from plantation or cultivated stocks (CITES source code A) until 2007, when the UAE recorded imports of agarwood from Thailand (23kg oil, 115kg chips) and Viet Nam (8 litres of oil).

## Adulterated or fake products

There were many reports of adulterated, artificial or fake agarwood products in the UAE market in discussion with industry participants. Two main types of fake agarwood were consistently described:

a) Low quality agarwood painted with a small layer of agarwood powder/shavings mixed with wax and other material, followed by a heating procedure;

b) Low quality agarwood, or substitute wood, is impregnated with a liquid mix of agarwood oil and alcohol. This product already has a market niche in the UAE, despite its low quality, and is often described as “BMW” (black magic wood) in the trade from South-east Asia. One UAE vendor explained that the alcohol facilitates the liquid to spread evenly to the whole of the body of the wooden piece. Sources for these products attributed to Indonesia (75%) and Malaysia (25%). This process was verified to TRAFFIC by Singapore-based traders who manufacture this “BMW” in Indonesia (mostly in Surabaya and Jakarta).

‘BMW’ and lower-cost agarwood products have an existing market niche in UAE for use by family households, for example in masking cooking aromas.



Low grade ‘black magic wood’ or BMW chips

James Compton/TRAFFIC

## Agarwood Imports by Species

The only data source with reference to records for individual agarwood-producing species is the CITES trade database, which becomes more diverse after 2005 when species other than *A. malaccensis* were subject to CITES provisions following additional listings agreed by Parties at CITES CoP13 in 2004.

**Table 10:**  
**Agarwood chips in kg, based on reported imports by UAE, classified by species**

| Taxon                        | Year of import (chips in kg) |        |        |        |        | Grand Total |
|------------------------------|------------------------------|--------|--------|--------|--------|-------------|
|                              | 2003                         | 2004   | 2005   | 2006   | 2007*  |             |
| <i>Aquilaria crassna</i>     |                              |        |        |        | 115    | 115         |
| <i>Aquilaria filaria</i>     |                              |        | 4576   | 34 201 | 74 640 | 113 417     |
| <i>Aquilaria malaccensis</i> | 2128                         | 56 464 | 55 026 | 64 054 | 75 668 | 253 340     |
| <i>Aquilaria spp.</i>        |                              |        | 6000   | 989    | 1723   | 8712        |
| <i>Gyrinops spp.</i>         |                              |        |        | 7396   | 10 458 | 17 853      |

Source: UNEP-WCMC CITES Trade Database (2003-2006); \*UAE CITES Scientific Authority (2007)

## Points of entry

Dubai, Abu Dhabi and Sharjah are the major entry points for most commodities into the UAE. With respect to agarwood products, Dubai airport is the major entry point for declared cargoes. This information was supported by traders interviewed, who stated that the majority of the imported agarwood enters as air cargo. While there is no official documentation on the exact points of import and re-export, Dubai is believed to be the port of entry and exit for trade in over 95% of agarwood and agarwood products, simply because of its transport and business infrastructure. The ports and airports of Abu Dhabi and Sharjah may play lesser roles in the agarwood trade, but these do not feature as points of entry for CITES-permitted cargoes.

## Trends in sources of supply

### India

The majority of traders interviewed in the UAE stated that India, a range State for *Aquilaria malaccensis*, remained a major supplier to the Middle East market until 10-15 years ago. Historically India has long been the 'original' source supply for the Middle East agarwood market. Two reasons were given for this change:

- a). The depletion of the wild agarwood tree populations (traders from small-medium companies and experienced salesmen from big companies seemed aware of the problem);
- b). Bans and restrictions on trade from the Indian government (this response was given as the only reason mainly by sales persons working in branches of big companies, or as a consequence of a) above).

India's legislation does not allow for any export of agarwood from its native agarwood tree populations, but does allow for re-exports of agarwood and agarwood products sourced from other range States. From 1996-2006, this totalled almost 38t of *Aquilaria malaccensis* (37,839kg) mainly in the form of chips, but also including 5600kg of agarwood powder and 787kg classified as agarwood 'timber', with the only countries of origin declared as either Indonesia or Malaysia. No exports of agarwood oil have ever been reported in India's CITES Annual Reports.

Since 2005, however, gross (re-) exports from India to the UAE have been markedly declining – to the point where UAE's reported imports of agarwood for 2007 total only 19kg of chips. This decline in CITES-permitted trade is believed to be due to an ongoing dispute between exporters and the CITES Management Authority of India over verification of the source of the proposed agarwood (re-)exports from India, despite India continuing to report CITES-permitted imports from other range States. There also exists an impasse between the Indian CITES Authorities and growers and exporters regarding the status of cultivated agarwood plantations in the north-east Indian State of Assam, relative to a finding of non-detriment and ability to be exported under India's national legislation (All Assam Agar Traders and Agar Oil Manufacturers Association (AATMA), *in litt.* to TRAFFIC, January 2008).

At the same time, during TRAFFIC's research, several incidences of agarwood quantities were observed (in 2005, 2006 and 2007) to be delivered to individual shops in Dubai. These bags or boxes of agarwood, and bottles of agarwood oil, had been brought in as personal luggage by passengers arriving from India, and chips and oil were delivered to be sold or held on consignment. It is understood that the most frequent seizures of agarwood in personal luggage at Dubai Airport have been from passengers arriving from India (Ministry of Environment and Water CITES Unit, *pers. comm.* to TRAFFIC, November 2007).

**Table 11:**  
**Origin of *Aquilaria* chips (in kg) imported by the UAE from India 2004-2006, as reported by UAE**

| Sum of Import Quantity<br>Taxon | Origin        |             |             |             | Grand Total |
|---------------------------------|---------------|-------------|-------------|-------------|-------------|
|                                 | Not Specified | Indonesia   | Malaysia    | Unknown     |             |
| <i>Aquilaria filaria</i>        | 3             |             |             |             | 3           |
| <i>Aquilaria malaccensis</i>    |               | 2000        | 1761        | 2480        | 6241        |
| <i>Aquilaria</i> spp.           | 71            |             |             |             | 71          |
| <b>Grand Total</b>              | <b>74</b>     | <b>2000</b> | <b>1761</b> | <b>2480</b> | <b>6315</b> |

Source: UNEP-WCMC CITES Trade Database

**Table 12:**  
**Origin of *Aquilaria* products (all species, in kg) (re-)exported by India to the UAE since 1995, as reported by India**

| Sum of (Re-)Exp Quantity |                   | Origin    |          | Grand Total |
|--------------------------|-------------------|-----------|----------|-------------|
| (Re-) Export Term        | (Re-) Export Unit | Indonesia | Malaysia |             |
| chips                    | kg                | 3916      | 27 536   | 31 452      |

Source: UNEP-WCMC CITES Trade Database

**Indian agarwood oil:** According to a small number of retailers in Dubai, although agarwood from India is not available in large quantities, agarwood oil (known as *dihn al oudh* in the UAE market) from India is still available. Many interviewees stated that this occurs as a result of India's function as an importer of agarwood from other range States, before re-exporting locally processed oil. Furthermore, some vendors interviewed in the UAE noted that India exports agarwood mainly in the form of oil. This is partly supported by CITES trade data held at UNEP-WCMC with regard to imports into India, but there has never been any reported CITES-permitted (re-) export of agarwood oil from India. Neither has there been any export of raw agarwood from India to UAE that lists India as the country of origin. This conforms to a restriction under Indian law which prevents the export of any unprocessed native agarwood stocks (see above section).

On the basis of TRAFFIC's observations in the north-east Indian State of Assam in March 2005, and from further consultations with industry participants in Assam and the UAE, there is a thriving industry of both cultivated agarwood production and oil distillation, which could account for some of the "Indian" agarwood oil that appears in the UAE market. Additionally, some vendors responded that despite the shortage of Indian-origin agarwood on the global market, traders can still find Indian-origin agarwood stocks in both India and Singapore. Alternatively, it was reported that Indian agarwood oil may be mixed with agarwood oil from different range States to create blended oil, yet this may still be offered to customers as "100% Indian agarwood oil" to take advantage of the market cache that the Indian 'brand' enjoys.

### **Cambodia**

A large market demand persists for Cambodian agarwood products, since there is a widespread perception among consumers that Cambodian agarwood is the best alternative to that of Indian origin. This market opinion was reported to have formed in the mid-1990s, when Cambodia was providing the market with significant supplies. Political instability in Cambodia was also stated as a fact that made control of the country's agarwood export market difficult and hence gave opportunities for smuggling. This information concurs with interviews conducted by TRAFFIC in Cambodia in 2004 with a trader who transported several litres of agarwood oil every three months to Singapore in his personal luggage for direct sale to Arab customers. Interviews with traders in the UAE revealed that supplies from Cambodia had been scarce since 2005, implying that agarwood sold in the market as 'Cambodian' may actually originate from other range States.

Based on CITES permit data there were no exports reported from Cambodia, nor imports reported to UAE during the period 2005-2006, noting that Cambodia's agarwood was not subject to CITES controls pre-January 2005, when the listing for species other than *Aquilaria malaccensis* came into force. Cambodia is a range State for *A. crassna*, a species for which harvest and trade has been banned since 1993 under Cambodian law (Walston et al, *in prep.*). It is understood that no legal permission has been given for Agarwood exports from Cambodia since *A. crassna* came under the purview of CITES (CITES Management Authority of Cambodia, *in litt.* to TRAFFIC, January 2008).

### **Lao PDR**

Relatively small quantities were observed in Dubai retail shops. According to one trader, Lao PDR used to provide more supplies approximately 10 years ago, and remains highly valued as a source for agarwood oil.

## **Indonesia and Malaysia**

In addition to the CITES trade data showing these two countries as major suppliers to the UAE, often via Singapore, Indonesia and Malaysia were mentioned as the major supplying countries by a significant number of traders. Reported examples of geographic sources from within these countries included: Kelantan, Terengganu, Sabah (Malaysia), Tarakan [Kalimantan], Merauke [Papua] (Indonesia), with the most significant source attributed to eastern Indonesia, Irian Jaya (now Papua) province.

## **Papua New Guinea**

One UAE trader stated that products from PNG, sometimes referred to by the trade name 'pawi', used to enter the UAE market in higher volumes until 1999-2000. The low quality and unfamiliar brand name for PNG products, along with the difficulties in obtaining supply, were the two reasons stated by this interview respondent for the discontinuance of the supply from PNG.

## **How Agarwood is sourced for the UAE market**

Based on interviews with traders, vendors and company representatives in the UAE, the following general patterns describe the sourcing of agarwood supplies.

To obtain their agarwood supplies, companies:

- Send representatives to visit their suppliers in range States or trade hubs (including buying from suppliers within UAE);
- Are sent samples via post prior to placing their order;
- Import from trusted suppliers, with different UAE-based companies often getting their supplies from the same merchants at major trade hubs (such as Singapore).

Agarwood cargoes enter the country:

- By air;
- Through private mailing/courier companies;
- Carried as personal luggage

Many UAE-based companies have set up branch offices in the range and re-exporting countries to ensure their quality and continuity of supplies.

## **Re-exports**

### **Destinations**

*Main Destinations:* Gulf Co-Operation Council (GCC) countries

*Secondary Destinations:* European Countries (e.g. France, Spain, UK)

Traders and vendors stated that Saudi Arabia was the major final destination country for UAE re-exports, followed by Kuwait and Qatar. The majority of retail outlets surveyed in Dubai reported that Saudis form a major customer component at agarwood shops in Dubai, with these customers often purchasing wholesale volumes in order to re-sell in Saudi Arabia.

Other product types re-exported from the UAE to neighbouring GCC countries include processed powdered incense (*bakhoor*), and blended perfumes containing agarwood fragrance (*muklahat*).

The following table shows a summary of re-exported agarwood products from the UAE as reported to the UNEP-WCMC CITES Trade Database from 2003-2006, with additional re-export data for 2007 supplied by the UAE CITES Scientific Authority. Within the category of oil, there are numerous finished perfume products which contain various concentrations of agarwood oil.

**Table 13:**  
**Agarwood products (re-)exported by UAE between 2004 and 2007, as declared by UAE**

| Sum of (Re-) Export Quantity |                   | Import Destination |    |      |        |      |               |
|------------------------------|-------------------|--------------------|----|------|--------|------|---------------|
| (Re-) Export Term            | (Re-) Export Unit | BH                 | FR | KW   | SA     | SG   | Grand Total   |
| chips                        | kg                | 313                |    | 2799 | 78 185 | 6022 | <b>87 319</b> |
| oil                          | kg                |                    |    |      | 12 565 |      | <b>12 565</b> |
| oil                          | litre             |                    | 2  |      | 283    |      | <b>285</b>    |
| powder                       | kg                |                    | 60 |      | 1127   |      | <b>1187</b>   |

Source: UNEP-WCMC CITES Trade Database (plus 2007 data from UAE CITES Scientific Authority)

In terms of reported CITES trade data, traders' verbal reports of Saudi Arabian buyers as their primary customers is backed up by Saudi Arabia appearing as the main re-export destination. It is not clear, however, if any individual customers (rather than companies) are applying for CITES permits before moving agarwood products from UAE to Saudi Arabia (see Section 5.2, below).

In addition to CITES trade data, Dubai Customs also reported 261 litres of agarwood oil exported to Kuwait in 2003, and 150 litres of agarwood oil to Iraq in 2004.

### Alternative Trade Procedures

The agarwood trade between UAE with Saudi Arabia faces some additional trade restrictions including religious specifications with relation to the purity of materials to be imported. As a result, apart from the legal channels and procedures, some traders verbally reported supplying their customers in Saudi Arabia using other methods:

- Via private mailing/courier companies;
- Carried out of the UAE as personal luggage;
- Sold in wholesale volumes to customers who visit Dubai (who then presumably leave with personal luggage);
- Send the agarwood products by truck.

The same techniques were stated to be common for agarwood exports to other GCC countries in order to avoid procedural complications.

There is only one official land border crossing between UAE and Saudi Arabia, at Al Ghuweifat in the west of the UAE. Recognising that this is a potential conduit for CITES specimens entering and leaving the UAE, it has been prioritised by the UAE CITES Authorities as an important checkpoint for collaboration

with Customs officials. There have been some efforts to build capacity in this regard in 2006 and 2007 (Ministry of Environment and Water CITES Unit, *pers. comm.* to TRAFFIC, 2007)

## Market structure

### Registration of Traders with the CITES Management Authorities

According to Article 18 of the Federal Law No.11, all persons carrying out any activity included in the scope of the provisions of the Law (e.g. import, export, sale, display) must be registered with the CITES Management Authority. It is not known how many companies in total have registered with the CITES Management Authorities, but as of November 2007, there were 38 companies registered as agarwood traders in Dubai (Ministry of Environment and Water, CITES Unit, *pers. comm.* to TRAFFIC, November 2007). One additional company not present in Dubai, and only in the Emirate of Abu Dhabi, has been registered (Federal Environment Agency, *pers. comm.* to TRAFFIC, November 2007). It should be noted that the registration of a company with either of the UAE CITES Management Authorities allows it to operate in any Emirate of the UAE (UAE CITES Management Authority, *in litt.* to TRAFFIC, 9 July 2008)

#### Commercial Registrations

Trade licences are obtained for each Emirate under different procedures. Each Emirate is responsible for holding a list of the registered companies only within its jurisdiction. Regarding the Emirates of Abu Dhabi and Dubai, the following procedures are to be followed<sup>5</sup>:

#### a) Abu Dhabi

Companies or enterprises practicing business and industrial activities within the Emirate (whether temporary or permanent) shall obtain licenses (Law No.(5), 1998) and join the Chamber of Commerce (Article 31, Law No. (6), 1976, amended by Law No. (1), 1984).

Companies trading agarwood in Abu Dhabi and Al Ain are included into the following categories:

- 131405: *Oudh* (agarwood), incense, scents and requisites trading: 27 registered companies as of 2005;
- 131416: Perfume Component Mixing: four companies in Abu Dhabi and two in Al Ain as of 2005;
- 131404: Perfume Trading: 632 registered companies (it is estimated that there are a number of *oudh*-trading companies included in this category, confirmed by a random sampling by phone) as of 2005.

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<sup>5</sup> It should be noted that the Emirate of Sharjah may also have some smaller significance as a trade hub for Agarwood, but the research did not focus on this location.

## b) Dubai

In accordance with the Articles 2 & 5 of Federal Law No (5), 1975 concerning the Commercial Register, every merchant must inscribe their companies with the Commercial Register. Under the Law (1), 1992 the Commercial Register falls under the responsibility of the Department of Economic Development (DED) and shall be followed by registration with the Dubai Chamber of Commerce and Industry (DCCI).

For the Commercial Register, the DED along with the DCCI, have established a standard classification for commercial activities. According to the first revision of this classification (2005) three commercial activities are related to agarwood trade:

- 2424-06: Agarwood and Incense Manufacturing (Under the category 2424: Manufacture of Detergents and Cosmetics): 1 registered company;
- 242403: Perfume Manufacturers: 14 companies registered, including two major agarwood trading companies;
- 5132-07: Agarwood and Incense trading: (Includes the re-sale of agarwood, oriental perfumes, various types of incense as well as the re-sales of requisites such as bottles, boxes and vaporizers etc). For this activity the DCCI has 347 registered companies, while the following numbers of registered companies were obtained by the DED for the years 2000-2005:

**Table 14:**

**Number of Agarwood and Incense trading companies in Dubai registered with the DED (years 2000-2005)**

| Year | Number of companies |
|------|---------------------|
| 2000 | 42                  |
| 2001 | 56                  |
| 2002 | 93                  |
| 2003 | 122                 |
| 2004 | 108                 |
| 2005 | 89                  |

Source: DED, 2005

The commercial list obtained from DCCI may contain companies, which do not deal with agarwood, which explains to some extent the discrepancy between the numbers of registered companies between DCCI and DED.

### **Agarwood Industry Segments and Distribution Channels**

Based on information obtained through individual interviews with agarwood traders, it can be concluded that most trading companies in the UAE have two common characteristics: they are mostly family-owned-and-run companies often with multiple outlets, and they perform multiple roles within the supply chain (importers-wholesalers-exporters-retailers). A few distinctive categories for trade participants in the agarwood market structure were identified by traders and vendors interviewed as follows:

- *“Big Players”*: Involved in importing agarwood, manufacturing *oudh* (agarwood) products, wholesaling and retailing. They own manufacturing facilities for the processing and manufacture of agarwood oil and blended perfumes in the UAE (Dubai, Jumeirah, Sharjah, Ajman) and abroad (e.g. India, Bangladesh, Thailand, Saudi Arabia and Yemen).
- *Manufacturing companies and wholesalers*: involved in the broader commercial activity of perfume manufacturing (Dubai) and perfume mixing (Abu Dhabi). These companies supply the UAE market with branded perfume products (including agarwood ingredients), as well as the wider GCC region and the market for ‘Arabic perfumes’ globally. At small retail-wholesale shops (not wholly owned by one company) in up-market shopping centres and bazaars, a wide range of branded perfume products were on sale.
- *Wholesalers*: Based on traders and vendors interviewed, there are 5-10 significant wholesalers of agarwood and agarwood products in Dubai.
- *Medium-size companies*: Some obtain their products in wholesale volumes in the UAE from foreign or local companies which also produce branded products on their behalf. Some medium-size UAE companies also claimed to own manufacturing units in India, Bangladesh, Yemen, and Saudi Arabia.
- *Smaller scale traders*: These small-time industry players buy from within the UAE wholesale supply chain, but some also claim to trade directly with Singapore or range States to procure agarwood chips and oil.
- *Unregistered traders*: Based on interviews, this category may form a substantial number of itinerant industry participants, operating from non-commercial premises (e.g. rented apartment) selling agarwood wholesale with local companies. Oil and other agarwood products are often bought in small amounts from individual suppliers.

## Perceptions Of CITES

In discussions with agarwood trading companies, CITES was viewed consistently as a barrier to trade and an impediment to business. The perceptions of industry members regarding the potential benefits of CITES regulations, if applied appropriately, to the long term sustainability of the agarwood industry were either indifferent or sceptical. Traders who were aware of CITES, when asked about the potential for a legal or certified chain of increasingly sustainable supply, stated that it would be very difficult to control the large number of Agarwood traders, and were concerned about the relative business incentives of compliance if it allowed less scrupulous competitors to take advantage.

## Grading and processing of agarwood products

### Quality Indicators

#### Raw Agarwood (*oudh*):

Based on interviews with traders and vendors in Dubai, the following information can be summarised regarding the characteristics of raw agarwood quality, which has a link to both grading and price: but most important are the indicators recognised by the market or individual customer: aroma, and country-of-origin.

- ***Aroma:***

Customers buying raw agarwood are focused on the aroma when the wood chips are burnt – and there are different preferences according to the individual. Particular aromas are attributed to range States and the resin content of the wood. In general, the higher resin content, the higher the quality; lower resin content and therefore lower quality is characterised by more woody aromas. Usually when lower quality agarwood is burnt it may irritate the nose and eyes more than the genuine (higher quality) ones.

- ***Country of origin:***

In the UAE market, the ranking between countries-of-origin as ‘brand names’ or having particular quality aromas follow in line with the sequence below:

1. India; 2. Cambodia; 3. Malaysia; 4. Laos-Myanmar; 5. Indonesia.

India and Cambodia were consistently quoted to be first and second in this scale, however, variations in response were noted between other countries-of-origin from traders and vendors interviewed.

- ***Duration of fragrance:***

Good quality agarwood burns evenly and rather slowly releasing its aroma gradually. Thus, the fragrance lingers in the room for a longer period. The period of burning depends on the size of the individual pieces and the oil content.

- ***Colour of the wood:***

Colour of the agarwood was stated to be related to the age of the tree and the amount of resin it contains. The quality was also said to be linked with the different parts of the tree – for example, the roots of the tree were thought to contain more resin than the trunk or branches. It should also be noted that before presentation on the market in the UAE, agarwood chips are usually polished, and often coloured to give a darker hue; all in the effort to attract buyers from the UAE and surrounding countries in the Middle East market.

- ***Size-Thickness:***

With regards to good qualities, size of individual pieces is not considered a quality indicator, since one quality may contain bigger and smaller pieces. Bigger pieces are preferred when the customers buy *oudh* for special occasions, where a large quantity is burnt to honour a large number of guests. Thickness of individual pieces, however, can be a useful indicator of quality, and from which part of the tree the piece was extracted. Lower qualities of *oudh* chips are usually very thin pieces from the outer layer of the tree



Agarwood allegedly sourced from India



Agarwood allegedly sourced from Malaysian Borneo



Agarwood allegedly sourced from Brunei Darussalam

trunk. Such thin pieces usually have smaller quantities of resin, and as a result burn quicker with a more woody smell. In contrast, better qualities of chips are thicker and burn evenly and slowly.

### **Agarwood Oil / *Dihn al Oudh*:**

Based on interviews with traders and vendors in Dubai, the following information summarises the indicators of agarwood oil (*dihn al oudh*) quality:

- ***Country-of-Origin:***

Similar to the preference for raw agarwood, India is considered to be the best ‘source’ of agarwood oil (*dihn al oudh*), followed by Cambodia. As noted previously, there were also reports by traders and vendors interviewed that lesser quality oils are likely to contain mixed ‘countries-of-origin’, as well as different ages or vintages of oil.

- ***Aroma:***

The more distinctive and spicier the aroma, the better the oil is considered to be.

- ***Duration of fragrance:***

Good quality *dihn al oudh* can be identified based on the duration the fragrance lasts on the skin or clothes, with good quality ones lasting for up to three days.

- ***Colour / Thickness / Density:***

The colour was reported to be connected with the age of the tree from which the chips (and then the oil) was extracted, while the thickness (viscosity) of the oil depends on the years that the oil was stored. This is connected with the years the distilled oil has been stored and thus matured: a process analogous to that of the different ‘vintages’ associated with wine.

As a general point, from nearly all interviews conducted, there was very little awareness of individual genus or species names, nor of the

Latin nomenclature used for scientific classification. In the UAE market structure, species names do not play a significant role as a quality indicator: no positive responses with reference to species name were recorded. As the market is supplied by entrepots as well as directly from range States/countries-of-origin, with agarwood of various levels of quality, it would be extremely difficult to distinguish wood chips by individual species.

## Grading System

In general, wholesale quantities of agarwood are disaggregated by the importer: first by country-of-origin, then by quality or grade. This process occurs either at point of purchase in the range State or entrepot, or at point of import into the UAE or other end-market destinations. Often the process happens twice – the cargo needing to be re-graded when it arrives in the UAE. This is why some companies employ expert graders and processors, often personnel from India (Assam and other north-east Indian States) and Bangladesh.

Traders in the UAE reported the use of common terminology to describe different grades. However, a fixed/standard system for grading does not seem to be established, and consequently the grading of agarwood products was described as relatively flexible and rather subjective. Grading mainly depends on the standards of each importing/trading company and the levels of experience of the grading personnel.

Additionally, the same grade from different countries of origin may hold different value in the overall market. According to traders and vendors interviewed, although the same terms (see Table 16 below) are used for all countries-of-origin, each country has its own place in the market (e.g. Double Super from India is always considered superior to Double Super from Cambodia).

Based on the responses of the traders the following qualities can be identified:

**Table 15:**  
**Grades for Agarwood / oudh chips**

| Grades                                          |             |                  |             |
|-------------------------------------------------|-------------|------------------|-------------|
| Double Super: (1-3 levels within this category) |             |                  |             |
| Super                                           |             |                  |             |
| Grade 1, 2 and 3 <i>oudh</i>                    |             |                  |             |
| Lower qualities:                                | <i>Mura</i> | <i>Kalagashi</i> | <i>Sala</i> |

Source: TRAFFIC Research

## Agarwood / Oudh chips

*Kalagashi*, *Mura*, and *Sala* are qualities that contain thin and small pieces with some variations. The term *kalagashi* in India is used to describe agarwood mixed with other, more common species of wood in order to increase the weight (Barden *et. al.*, 2000). In Dubai however, this mixing process was not mentioned by traders either due to lack of knowledge or unwillingness to discuss such issues.

**Table 16:**  
**Qualities for dihn al oudh**

|                 |       |
|-----------------|-------|
| <b>Maliki</b>   | Jedid |
|                 | Kadim |
| <b>Seufi</b>    | Jedid |
|                 | Kadim |
| <b>Mubakhar</b> | Jedid |
|                 | Kadim |

Source: TRAFFIC Research

### **Agarwood Oil / Dihn al oudh:**

Traders use common terms such as *Maliki* (=royal), *Seufi* (=sword), and *Mubakhar* (translation unknown) to describe different qualities. Others name the *dihn al oudh* depending on the place of origin such as *Pusat*. Each of the mentioned qualities or terms can then be divided in two subcategories: *Jedid* which means “new” and *Kadim* which means “old”.

## **Processing**

Processing begins with selection in the country-of-origin or entrepot, where gradings are agreed at point of sale, and subsequently the cargo is usually re-sorted once it arrives in the UAE. According to traders interviewed, supplies are purchased from the Singapore merchants or directly from range States in different qualities and often relatively bigger pieces. These larger pieces may contain a variety of qualities within each piece, and thus are re-graded and often cut into smaller chips resulting in two-to-three more grades for retail. This is done by skilled graders who may have been brought to Dubai for this specific purpose from areas in north-east India (e.g. Assam) or Bangladesh (e.g. Sylhet), where grading expertise goes back many generations. As previously noted, graded agarwood chips are usually polished, and often coloured, to give a darker hue before presentation on the market in the UAE.

The profit margin for higher grades of agarwood chips is still high enough not to be economical to process high grade chips into oil. Thus it is usually the lower grades of wood that are used for oil distillation, except under particular circumstances when high-grade oil is required. Some responses in UAE from traders interviewed suggested that in the past the roots of the tree were included in the distillation process, as it is thought that more resin is contained in the lower parts of the tree. The fact that the trend in general availability of higher grades of agarwood is decreasing means that lower-grades of chips are dominating the market, and consequently there is more oil being produced. Some interview responses suggested also that the quality of the oil has become far inferior in recent years as a result.

## **Manufacturing**

### **Oil Production**

#### **Local Processing:**

Some big companies own manufacturing units within the UAE, including distillation facilities. However, some traders and company representatives stated that UAE manufacturers focus more attention on producing different blended perfumes or various *oudh* products and derivative such as scented chips and compressed *bakhoor*. The inferior quality of the UAE water (which is mostly produced by desalination) is not appropriate for agarwood oil distillation. One company representative explained that his company’s distillation unit in Dubai supplies oil only for blending purposes, whereas imported oil is sold directly, usually unadulterated and without blending.

### **Processing Abroad:**

Large quantities of oil were reported by interviewees to be imported from Bangladesh, India, Malaysia and Thailand; all countries which many traders stated their companies have established distillation units, or have direct connections with distillation operations. Other companies were reported to obtain supply from similar distillation operations in Yemen or Saudi Arabia. None of these sources are borne out by reported CITES trade data on imports into the UAE, which indicates the possibility of an additional trade segment which may be a combination of unreported and unregulated imports in personal luggage and smuggled commercial quantities of oil.

UAE's large perfume manufacturers work with international perfume suppliers which provide them with either raw chemicals to use for the blending process, or produce, on their behalf, branded perfume products, according to traders interviewed, as well as company websites).

### **Agarwood Chips → Oil Conversion Factor**

For the issuance of CITES permits since 2004, the UAE CITES Management Authority has used an official conversion formula established by a leading agarwood trading company in consultation with the UAE CITES Authorities.

- For the production of 6 toulas of oil, 10 kg of wood is required. Therefore, for 1 litre of oil, 143.6kg of agarwood are used.  
(1kg/1l contains approximately 86 toulas, 1 toula is calculated as equal to 11.6g)

According to other traders the quantity of oil produced by 1 kg of agarwood varies from 3-10g. This would suggest that to produce 1l of oil, between 100 and 333kgs of wood are required.

The conversion factor also depends on the efficiency of the technology available as well as the amount of oleoresin contained in the wood pieces used for distillation. Thus, standardised conversion factors can only be indicative.

However, even if the UAE conversion factors are conservative, if this conversion rate is applied to the total reported re-exports of agarwood oil from the UAE between 2004 and 2006, some idea of the significance of the agarwood oil segment of the overall trade can be gleaned.

From 2004-2006, the UAE reported re-exporting 12,565 kg of agarwood oil<sup>6</sup>. Using the standard conversion factor as a basis for calculation, including a margin for error i.e. that between 100 and 333 kgs of wood are required to produce 1l of oil, the extrapolation of total amounts of wood processed to produce the quantity exported by the UAE over this three-year period is between 1,256,500kg and 4,184,145kg of wood, or between 1257 and 4184 tonnes<sup>7</sup> of wood.

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<sup>6</sup> This assumes that 1 kg = 1 litre, which may not be completely accurate.

<sup>7</sup> In addition to the amounts reported in kg, the UAE reported re-exports of perfumes containing various concentrations of agarwood oil, totaling approximately 285 litres. If the same conversion rate is used, this would account for an additional 28,500kg to 94,905kg, or between 28.5 and 95 tonnes.

## Agarwood products in the retail market

### Qualities used for different end products

Low quality chips, and shavings and powder, which remain from the sorting and grading steps of the processing are normally used for distillation into oil. Once the chips/shavings/powder have been distilled, they are then dried and used in the manufacture of *bukhoor* and *mahmool* for the lower end of the fragrance market.

Good quality agarwood is rarely used for distillation, aside from residue from the sorting and grading stages, unless on the rare occasion that companies specifically want to produce very high quality agarwood oil / *dihn al oudh*.

For blended perfumes, the attributed country-of-origin does not play a significant role in marketing the product to the consumer. Different agarwood oils and qualities of powder are mixed together, often with a number of other ingredients, to make what are known as *attars* and *mukhalats*.

**Table 17:**  
**Qualities of oudh shavings used for the production of oil**

|                                                                                                              |                                                                                    |
|--------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| <b>Pure <i>dihn al oudh</i> (expensive)</b>                                                                  | Medium qualities                                                                   |
| <b><i>Dihn al oudh</i> (cheaper)</b>                                                                         | Lower qualities of <i>oudh</i> (From the same country) are usually mixed together. |
| <b>For blended Arabian perfumes (<i>attars</i> / <i>mukhalats</i> / <i>bakhoor</i> / <i>mahmool</i> etc)</b> | Low qualities of <i>oudh</i> are usually mixed together.                           |

Source: TRAFFIC Research

### Quantities used for agarwood / oudh derivative products

According to traders interviewed, the quantities of agarwood used for manufacturing derivative products varies significantly from company to company, and therefore cannot be standardised. Based on the information obtained from the UAE CITES permits database, however, some indicative numbers can be observed:

- a) For liquid perfumes and oil-based products, the quantities of agarwood reported to be used range from 0.05% to 95%;
- b) For scented wood chips the concentration ranges from 40%-60%.

### Potential profit margin

The majority of interviewees stated that trade in agarwood chips has a considerably lower profit margin than agarwood oil-based perfumes. One important issue mentioned by two traders was that trading in agarwood / *oudh* chips entails a higher risk due to the high possibility of importing a mix of lower grades in a wholesale shipment, resulting in a nett loss.

Obtaining precise information about the profit structure for each type of product proved difficult, due to the commercial nature of the inquiries. What was gleaned from four interviewees was as follows:

- a) For agarwood / *oudh* chips, the profit varies between 20% and 40%;
- b) For agarwood oil / *dihn al oudh* the profit varies from 50% to 100%;
- c) For blended perfumes containing agarwood extracts, profit can be 100% and above.

The level of profit will depend on the scale of trading and manufacturing activities conducted by each company, and the price the market will bear.

## **Packaging**

Packaging holds an important role for promoting sales of luxury items, and the end-prices which perfume products can command. Packaging varies from basic to luxurious bottles and boxes depending on the prices of the agarwood-derived products. Packaging is also very important for branded products, as it aids in the easy identification of the products by the consumers. It was observed by several vendors interviewed that elaborate packaging with an oriental tone was one of the most important factors attracting tourists to sample agarwood-derived perfumes.

## **Price Fluctuation**

### **Supply Periods**

With regard to the supply locations, traders interviewed stated that prices fluctuated regularly depending on two factors:

- a) Seasonal peak period with significant rises of prices: Peak season for obtaining agarwood for the Middle East market is the period starting 4-5 months prior to Ramadan (the Muslim month of fasting);
- b) Irregular Supply: Depending on ease of harvesting due to accessing increasingly remote source areas for wild stocks, quality and volume of supply fluctuates throughout the year, which affects the price structure across the trade chain. This varies also with wet and dry season in the range States.

## **Retail**

Bigger companies try to keep their products at a stable price to maintain the market niche. However, the fluctuation of the import price is always reflected in the retail prices in the UAE. The prices of agarwood oil / *dihn al oudh* and other agarwood-derived perfumes have been characterised as more stable than agarwood chips, since the price fluctuation seems to have a direct impact on the raw material, while perfume products include a high percentage of production and other costs. As a general trend, retail prices for agarwood chips have been rising on an annual basis.

## Retail Prices

### Agarwood / Oudh Chips (AED per kg)

**Table 18:**  
Retail prices quoted in dubai agarwood outlets (chips) in Dubai

| Attributed Country-of-Origin | Price per kg (low-to-high grade range) in AED - 2005 | Price per kg (low-to-high grade range) in AED - 2007 |
|------------------------------|------------------------------------------------------|------------------------------------------------------|
| Cambodia                     | 2000 – 60 000                                        | 2200 - 80 000                                        |
| India                        | 5000 – 60 000                                        | 2800 - 70 000                                        |
| Indonesia                    | 700 – 17 000                                         | 2000 - 7000                                          |
| Malaysia                     | 750 – 45 000                                         | 8000 - 30 000                                        |
| Myanmar                      | 2850 – 14 000                                        | 4000 - 80 000                                        |
| “Artificial” (BMW)           | 500 - 2000                                           | 1200 - 1500                                          |

Source: TRAFFIC research

(Conversion rates: November 2005 AED1=USD0.272; November 2007 – AED1=USD0.272)

The most expensive agarwood chips are not usually on open display, and are usually kept in separate containers, often suitcases or boxes, which are displayed upon request from the customer. One technique that was stated to be commonly used by different companies was to show the customers *oudh* of medium quality and price and continue the deal depending on the customer’s reaction and level of knowledge. It was stated that high-end customers would even pay up to AED120,000 per kg for top quality agarwood /*oudh* chips.

### Agarwood Oil / Dihn-al-Oudh (per toula: 1 toula = 11.6g):

**Table 19:**  
Retail prices observed during shop visits (oil\*)

| Attributed country-of-origin | Price per toula | Price per toula |
|------------------------------|-----------------|-----------------|
|                              | (AED) - 2005    | (AED) - 2007    |
| India                        | 500 – 5,000     | 1600-5000       |
| Cambodia                     | 200 – 2,500     | 600-2000        |
| Malaysia                     | 150 – 1,000     | 1000            |
| Myanmar                      | 300-800         | 1100            |

Source: TRAFFIC market research

(Conversion rates: November 2005 - AED1=USD0.272; November 2007 – AED1=USD0.272)

\*Note that the purity of the oil was not able to be verified, and that the prices quoted for oil were taken at face value.

## Consumer groups and profile

### Nationality

#### **i. UAE nationals and residents, plus Gulf Cooperation Council (GCC) nationals**

Aside from local residents, customers from GCC countries (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates) form the majority of the agarwood consumers in the UAE. Dubai's primacy as a trade hub and increasingly popular tourist destination ensures a constant flow of interested customers visiting from surrounding countries, some of whom purchase wholesale in order to re-sell back in their home country. The majority of traders interviewed, irrespective of the location of their outlet / shop, explained that nationals of Saudi Arabia formed the highest percentage of their customers, and this was matched by the highest purchasing power.

#### **ii. Foreign Nationals (outside GCC)**

The establishment of Dubai as an attractive location for business as well as leisure, combined with international trade fairs, conferences and exhibitions has resulted in a large influx of foreign nationals from outside the GCC. Consequently, additional consumer groups interested in experiencing Arab culture have been added to potential agarwood customers. During TRAFFIC's research interviews, many people of different nationalities entered shops to see or buy products: other than Europeans, people were observed from Southeast Asia and Africa. As a general observation by the traders interviewed, these groups of customers tend to buy lighter oriental perfumes or chip mixtures as well as *bakhoor*. Customers from India form a small group within the foreign nationals, mainly purchasing *bakhoor* and low quality-cheap mixed perfumes. British, German, and Russian were the nationalities mostly mentioned as the best foreign customers among non-GCC nationals. Russians were reported to buy other essential oils rather than items containing *oudh*.

### Age

Agarwood / *oudh* products continue to be used widely among all ages:

- Older people (>50 years old) mainly use *dihn al oudh* and traditional Arabian perfumes.
- Younger people (< 40 years old) tend to use all kinds of products often without discrimination. They use essential oils for their body (behind the ears, arms, and noses), incense for their clothes and at the end they use French-style perfumes, sometimes mixed with *oudh* blends. Younger people tend to look for medium-low priced products depending on their purchasing power.
- It was observed that in general younger women did not purchase the *oudh* products they use themselves. Within the Arab family structure, usually the parents and especially mothers were said to be responsible for purchasing these items as part of taking care of the family and home.

### Gender

Women:

- Women are responsible for the household, and usually are in charge in purchasing agarwood



James Compton/TRAFFIC

**A merchant shows agarwood quality to a customer**

chips and incenses for the house. As a result, women are the dominant purchasers of agarwood products in the market;

- Women themselves tend to use a wide variety of *attars*, *mukhalats* and mixtures of French and Arabic perfumes.
- Older women (>50 years old): still buy agarwood powder to prepare their own *bakhoor*

Men:

- Use *dihn al oudh* and French-style perfumes with some *oudh* ingredients;
- Visit the shops less often in person.

### **Fluctuations in demand**

Shopping festivals, Eid celebrations, and preparations for Ramadan have appeared to be the peak periods with respect to sales, as stated by the majority of traders interviewed. During Ramadan itself, sales were slower.

Trade promotion events such as Dubai Shopping Festival and Dubai Summer Surprises affect the sales performance not only at the shops in the malls participating in the Festivals, but also the commodity markets in general. One major perfume company assessed the significant surge in total sales during two years of the Dubai Shopping Festival: DSF 2003: 10% growth, 2004: 15% (AME Info, 2004i). These figures may reflect potentially positive market growth for agarwood products also, catalysed by such promotional events.

## **Level of knowledge**

In general, end-consumers in Dubai did not seem to have a considerable knowledge of the specifics of agarwood products, and thus their ability to distinguish source countries and grades/qualities is quite limited. Salesmen often take advantage of this lack of knowledge and have developed sophisticated techniques for approaching the customers and convincing them on the quality and price of the product.

## **Future perspectives**

### **Market Characteristics**

#### **Market Size**

The market size of oriental perfumes (including agarwood-derived products) in the UAE has been estimated at approximately AED2-2.5 billion for 2004, and across the Middle East region at AED14.6 billion (Rahman, 2005; Ayyash, 2005). It has been also stated that eight major perfume companies control about 75% of the market (Rahman, 2005). One major perfume company has estimated the market growth of the oriental perfume market at 6-7% per year (Rahman, 2005), with Saudi Arabia and UAE described as the two fastest growing markets (AME Info, 2004ii). However, the mid-market segment of Western-style perfumes is growing at a higher rate at 10-12% per annum (Rahman, 2005). In line with the figures above, the majority of traders interviewed for this research described the agarwood / *oudh* market as steadily growing since the 1990s.

#### **Nature of Demand**

The demand for agarwood / *oudh* products does not seem to have been affected by the gradual rise of retail prices. This can be explained by the unique nature of the uses of agarwood, which is strongly linked with Arab culture as well as by the rise of the consumer purchasing power since the 1970s, and particularly since the 1990s owing to the (fuel, not agarwood) oil price boom and the expansion of international business activities within the GCC. The exponential rise in oil prices between 2004 and 2008, and the concurrent boom in the UAE economy (particularly in Dubai), have seen a proliferation of luxury brands and status symbols in the marketplace, and agarwood / *oudh* products often function as social status indicators among Arab customers.

Based on the responses of traders interviewed, consumers tend to spend comparatively more money on perfume products. The number and frequency of visits to perfume shops have increased, with consumers purchasing new perfume products even on a monthly basis.

One leading UAE perfume company dealing in agarwood products has estimated the growth of the demand for fragrance products in GCC countries and other markets at a steady rate of 25% per year for the years 1999-2002. More specific, for the year 2002 they observed a 20% increase in total sales (AME Info, 2003).

According to salesmen, branded oil-based blended Arabian perfumes and oriental fragrances mixed with French styles are continuously getting a bigger share of sales. Such products are also preferred by tourists (a segment that is growing considerably). As a response to such a growing demand, big companies launch

new branded perfume products almost every month. Air fresheners, body lotions, and sets with a range of different products (even agarwood-fragrance shampoo) are fast moving products.

According to traders interviewed, oil-based and spray perfumes hold a higher percentage of sales comparing to incense products (agarwood chips/*bakhoor*). The proportion estimated by one trader was 60% - 40% of the total sales.

A significant number of the interviewed traders stated that agarwood chips were a high-risk product due to gradually increasing shortage in supply volume and regularity, and overall declining qualities; while bringing relatively low profit margins. Many traders explained that their profits are derived mainly from the perfume trade in order to be able to sustain their agarwood / *oudh* business as a whole. Consequently, big companies focus on perfume production and promotions. As the director of a small company stated, in order to be an *oudh* trader it is inappropriate not to sell incense products, describing agarwood chips as a “dying product”.

## **Marketing strategies**

### **Penetrating the existing market:**

Big companies follow retail expansions as part of their response to the high degree of competition, followed by large promotions with the overall aim to establish a visible profile with Arab/GCC customers. Big investments in Research and Development facilities or new manufacturing units aimed to raise the production capacity were observed to be promoted by inaugurations by Sheikhs and with newspaper coverage. In the GCC, three major companies dealing with a variety of agarwood products currently have 465 outlets in the GCC countries, with approximately 50% in the UAE itself.

Given the cultural context of agarwood products, combined with the launch of new concept products (sprays, deodorants, body lotions), companies are consolidating their ‘image’ within the existing market of GCC nationals. Marketing strategies in the UAE are closely linked to large promotional events, such as Dubai Shopping Festival and Dubai Summer Surprises, an annual contest on oriental perfumes, as well as special offers also aim to increase sales.

### **Establishing new consumer market demand**

Special focus has been given to the purchasing interest of foreign nationals, both GCC and visitors from elsewhere. Large promotions focus on bringing tourists to the perfume shops, with an emphasis on the ‘exotic culture’ of Arabian perfumes as part of the experience of visiting the UAE.

Large hotels have also assisted the growth in this cultural awareness, by introducing their hosts to traditions of Arab hospitality which includes incense burning (Ayyash, 2005), in addition to the cultural dissemination via institutions such as the Shaikh Muhammad Centre for Cultural Understanding in Dubai’s Bastakia area. Furthermore, big companies have included in their marketing strategies the expansion of trading networks in new markets abroad, such as Europe (UK, France) and North America (USA), Africa (Egypt, Morocco), the wider region of Middle East as well as India, Iran and Pakistan. Such markets absorb mid-to-low range perfume products, as well as a smaller amount of high-end products.

## **Problems Identified by industry experts**

### **Volume and Quality**

The overall volume and quality of the supplies have decreased dramatically. This has been identified as the major threat to the continuity of the agarwood / *oudh* business by the majority of traders interviewed. Almost 50% of traders interviewed remarked on the loss of the wild forests and the use of younger trees with less resin content as the main reasons for such problems.

### **Reliability and Market Ethics**

This shortage of supplies in a market with a growing demand has led to some unscrupulous traders using various techniques to maximize their profit margin; such as polishing, artificial colouring (*oudh* and *dihn al oudh*), “brand-naming” agarwood / *oudh* products as coming from the most preferred range States, mixing different qualities of agarwood, and agarwood oil. Two traders mentioned that these techniques are of common practice, while in general the majority of the traders tended to blame their competitors for pursuing such practices instead of following ethical and transparent procedures.

During the shop visits, outlets of the same company but different shops sold products from different countries-of-origin: for example at one shop agarwood chips and oil were claimed to be from India and Malaysia, while at another shop Malaysian, Cambodian and Indonesian products were on sale. In both cases the salesmen explained that products from Cambodia and India were very rare, and hence, very expensive.

Trust-based relationships between traders, and within the supply chain, are regarded as the most important considerations. Dealing with the same suppliers on a regular basis or involving family members in the supply chain as a means of protecting their business was stated to be a widespread practice. Stockpiling however, is not a common practice outside of the big companies, since it requires large amount of investment that medium and small businesses cannot afford.

### **Other**

*High degree of competition:* the growing numbers of companies entering the market was identified as a cause of profit loss by medium and small traders. During shop visits traders often believed that the researcher was representing a competitive company and were sceptical in giving information.

*High rents:* Many small traders in up-market shopping malls pointed out that the rents in Dubai were getting irrationally higher, making it difficult for them to maintain their businesses. They also mentioned that a number of small shops have closed down during the past 5 years.

*Trade Restrictions:* A few traders mentioned the trade restrictions in India as a cause of prices rising. In isolated cases, traders also mentioned global application of CITES as affecting both continuity of supply and contributing to price increases.

## DISCUSSION AND CONCLUSIONS

The period of this research co-incided with a surge in oil prices (which lasted through to late 2008) and general expansion of the UAE economy, and it is clear that the UAE is a significant player in the global agarwood trade. Together with Saudi Arabia, the two neighbouring countries represent the dominant markets for agarwood products in the Middle East, with Saudi Arabia a significant direct importer from range States as well as being the largest recipient market for agarwood products re-exported from the UAE. Although there are some opinions among industry participants that the overall market for fragrances is changing rapidly away from traditional agarwood chips and oil, observations of the persistent availability of agarwood stocks – in the form of wood chips, oil, blended *attars* and *muklahats*, sophisticated perfumes, and lower-grade products for home use like *bakhoor*, scented agarwood pieces and *mahmool* – confirm an extremely active retail market in the UAE. Many of the dominant companies have branches in the various department stores and malls, as well as dedicated shops scattered across Dubai and Abu Dhabi (as well as in other countries) – and the number of outlets continues to increase as new malls are built and retail shopping precincts opened.

The market structure for agarwood / *oudh* trade in the UAE has been largely opaque until now, and remains highly competitive and somewhat arcane – for example, there are no importers or trading associations and although there is some trading within the UAE market between wholesalers and retailers, there appears to be very little information exchange between companies.

There is, however, a general awareness of the decline in availability of wild stocks from range States, both in quantity and quality – but particularly the latter. This has led to efforts by various companies and their emissaries to identify new sources of wild agarwood stocks in more remote areas of range States. The reduction in quality is believed to be due to overexploitation of old-growth agarwood trees in the wild. Addressing this decline in conjunction with range States is the most critical element to ensuring the continuation of this centuries-old trade, and the cultural use of agarwood in the UAE and across the Middle East.

The fact that the UAE CITES Authorities have called for increased co-operation between agarwood producer and consumer countries is a positive sign, and putting this into action should be seen as the first important step towards securing mutual understanding between CITES Parties. While there is definite potential to harness the market forces, the purchasing power and the persistent cultural demand from the Middle East to assist the conservation and sustainable management of agarwood production in range States, it will take concerted efforts to realise such possibilities.

It is not known whether any major investment from the UAE has gone into the development of plantations or cultivated agarwood production systems, except in north-east India where at least one UAE-based company has been pursuing cultivation for several decades. Company website information in some cases, however, states a commitment towards sustainability of supply with three major players in the UAE agarwood market claiming to harvest agarwood from private plantations and carry out studies in the field.

In discussions with agarwood trading companies, CITES was viewed consistently as a barrier to trade and an impediment to business. The perceptions of industry members regarding the potential benefits of CITES regulations, if applied appropriately, to the long term sustainability of the agarwood industry were either indifferent or sceptical. Traders who were aware of CITES, when asked about the potential for a legal or certified chain of increasingly sustainable supply, stated that it would be very difficult to control the large

number of agarwood traders, and were concerned about the relative business incentives of compliance if it allowed less scrupulous competitors to take advantage. Low levels of consumer knowledge about the sources of agarwood and the low level of environmental concern among UAE consumers in general were also viewed as difficult issues.

Despite the fact that agarwood use and trade has a long history within the Arab culture in the Middle East, the absence of written sources and baseline information, including trade data, hinders the attempt to depict a trend over longer periods of time. With regard to imports and exports, it is not possible to track the changes in the actual volumes, qualities and products traded except through relatively recent CITES trade statistics, and some Customs data.

Official CITES data on agarwood trade are not available from the UAE prior to 2003, and in the period from 2004 onwards, there is a lack of consistency between the data held at the UAE CITES Management Authority and Customs (at least in Dubai) – although it is important to note that it was not possible to examine the complete Customs data for HS Codes relative to agarwood products for the period 2003 onwards. The classification of Customs prior to 2006 included raw agarwood in a general category, grouped with other products, resulting in difficulties in tracing exact figures on agarwood in Customs data. However, the revised Customs codes established in July 2006 are expected to enable more specific information to be compiled in the future. Currently the UAE CITES Management Authorities depend on approved CITES permit data because data from Customs is not considered complete. There are efforts underway to ensure Customs data is entered into the UAE CITES permit system at federal level, from various ports of entry/exit, which is expected to improve the accuracy and reliability of trade data on actual volume/mass, and allow comparison with approved permit data (UAE CITES Management Authority, *in litt.* to TRAFFIC, 9 July 2008)

The CITES Management Authorities in Abu Dhabi (the Federal Environment Agency) and Dubai (the Ministry of Environment and Water, formerly the Ministry of Agriculture and Fisheries) have since 2004 worked in collaboration to improve the UAE's compliance with Annual Reporting requirements to the CITES Secretariat and the compilation of trade data at UNEP-WCMC. The collaboration with key enforcement agencies, including Agricultural Quarantine and Customs remains essential to implementing and enforcing CITES controls and the provisions of the UAE's Federal Law No. 11. Efforts by the CITES Authorities in working with Customs to establish improved trade monitoring of CITES-listed species have been increased, but the overall impact from these efforts are as yet unable to be assessed with respect to official records of seizures and prosecutions. However, the increase in registration of agarwood industry participants with the CITES Management Authority shows a positive result of awareness-raising with agarwood companies and traders.

It is important to note that this process of improved monitoring and implementation has taken place with respect to agarwood trade regulation despite the UAE having taken out a reservation for all *Aquilaria* species except *Aquilaria malaccensis*. The UAE's active participation in the first CITES Agarwood Experts Group Meeting, held in Kuala Lumpur in November 2006 was an extremely positive step (see Annex IV for Executive Summary from this meeting). This meeting brought together government regulators, industry members, technical and scientific experts from producer, entrepot and consumer countries and allowed the UAE to put forward its particular concerns and to seek the advice and opinion from other global players in the agarwood trade. The UAE's offer to host a similar meeting in the near future is another positive step towards resolving concerns related to the status of supply from both wild and cultivated sources, and the questions of personal effects exemptions and which products should be controlled under CITES.

## RECOMMENDATIONS

- 1). To facilitate further considerations of concerns raised by the UAE in 2002 (at the CITES Asia Regional Meeting), 2004 (at CITES CoP13) and at the CITES Agarwood Experts Group Meeting in 2006, the UAE is encouraged to work with its neighbouring countries to convene a second experts' group meeting in the Middle East as soon as possible. Such a forum would allow for issues specific to the Middle East consumer countries to be discussed, and for greater understanding between producer and consumer countries. Specifically, this proposed forum would enable implementation of CITES *Decision 14.138* on which agarwood products should be under CITES controls, *Decision 14.139* on standardized units of reporting (see below), and *Decision 14.140* regarding production of a glossary of terms specific to agarwood products in trade and relevant terminology.
- 2). Monitoring of border checkpoints, particularly Dubai Airport, for CITES-listed specimens already involves co-operation between CITES, Customs and Quarantine officials. This co-operation should be strengthened, and where possible under UAE law with regard to the existing CITES Reservation, personal luggage should be monitored as a mode of import and re-export for agarwood products coming through the UAE.
- 3). To enable ease of monitoring and data analysis, standard units should be used by the UAE CITES Management Authorities for agarwood products and particularly mass/volume. It is suggested to use kg for wood chips and powder, and litres for oil and other liquid perfume products. The UAE's efforts in this regard should be co-ordinated with other Parties in meeting the recommendations of CITES *Decision 14.139*.
- 4). Following more specific HS Codes in use by Customs since July 2006, the cross-referencing of data sets held by Dubai Customs and the UAE CITES Authorities will allow for a comparative analysis of agarwood trade data. This cross-checking should provide a broader understanding of the UAE's agarwood trade profile.
- 5). The UAE has remarked publicly on the need for producer and consumer countries to work together on management of the global agarwood trade, which is to be commended. Such collaboration should also involve re-exporting countries, such as Singapore, to ensure complete coverage of the trade chain. With regard to the continued predominance of agarwood products claimed to originate from Cambodia and India in the UAE retail market, and the seizures of cargoes coming from India without CITES permits, it is recommended that the UAE communicates directly with these range States to try to resolve the current situation and looks for areas of mutual co-operation.
- 6). In the UAE itself, the outreach by the CITES Authorities to the agarwood industry has resulted in an increase in registered trade participants. Such interactions are encouraged to continue, and for means to be explored to use the market demand as a component of producer-consumer co-operation towards legal and sustainable trade practices, and the raising of further awareness of CITES regulations. By taking an inclusive and consultative approach, the relationship between conservation and sustainable trade concerns and the agarwood business can be further explored.
- 7). Following CITES *Decision 14.137*, the UAE is encouraged to work with other trading Parties and the CITES Secretariat to produce identification materials for all forms of traded agarwood products under CITES control.

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**ANNEX I :**  
**Dubai Customs Records, 2003-2004 – Chips and pieces of Aloeswood, sandalwood and other aromatic woods fresh or dried, whether or not cut, crushed or powdered**

|            |         | 2003        |             |             |             | 2004        |             |             |             |             |             |
|------------|---------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|            |         | Import      |             | Export      |             | Re-Export   |             | Import      |             | Re-Export   |             |
| Country    |         | Weight (kg) | Value (AED) |
| AUSTRALIA  |         |             |             |             |             | 110         | 17,887      |             |             | 95          | 9,000       |
| AZERBAIJAN |         |             |             |             |             |             |             |             |             |             |             |
| BAHRAIN    |         |             |             | 811         | 44,045      |             |             |             |             |             |             |
| BANGLADESH |         |             |             |             |             | 65          | 15,000      |             |             | 1,611       | 23,000      |
| CAMBODIA   | 15      | 14,727      |             |             |             | 25          | 30,411      |             |             |             |             |
| CHINA      |         |             |             |             |             | 8,965       | 236,832     |             |             |             |             |
| EGYPT      |         |             |             |             |             |             |             |             |             | 57,050      | 68,460      |
| ERITREA    |         |             |             |             |             |             |             |             |             | 1,109       | 48,477      |
| FRANCE     | 1       | 100         |             |             |             |             |             |             |             |             |             |
| GERMANY    | 8       | 100         |             |             |             |             |             |             |             |             |             |
| HONG KONG  | 5       | 100         |             |             |             |             |             |             |             |             |             |
| INDIA      | 83,927  | 3,226,988   |             |             |             | 29,940      | 852,738     |             |             | 48,299      | 365,382     |
| INDONESIA  | 107,159 | 1,540,925   |             |             |             | 195,049     | 4,360,875   |             |             |             |             |
| JAPAN      |         |             |             |             |             |             |             |             |             |             |             |
| KUWAIT     |         |             |             |             |             |             |             |             |             |             |             |
| LAOS       | 62      | 47,213      |             |             |             |             |             |             |             | 225         | 49,050      |
| LIBYA      |         |             |             |             |             |             |             |             |             |             |             |
| MALAYSIA   | 12,487  | 1,811,134   |             |             |             |             |             |             |             | 330         | 1300        |
| MYANMAR    | 1       | 100         |             |             |             |             |             |             |             |             |             |
| PAKISTAN   | 1       | 400         |             |             |             | 2,460       | 7,659       |             |             | 11,000      | 32,318      |

**ANNEX I (continued) :**

**Dubai Customs Records, 2003-2004 – Chips and pieces of Aloeswood, sandalwood and other aromatic woods fresh or dried, whether or not cut, crushed or powdered**

| Country      | 2003        |             |             |             | 2004        |             |             |             |             |             |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|              | Import      |             | Export      |             | Re-Export   |             | Import      |             | Re-Export   |             |
|              | Weight (kg) | Value (AED) |
| QATAR        |             |             |             |             |             |             |             |             |             |             |
| SAUDI ARABIA |             |             |             |             | 2,965       | 241,500     | 20          | 6,914       | 26,993      | 262,377     |
| SINGAPORE    | 5,166       | 827,901     |             |             | 180         | 4,701       | 4,053       | 641,739     | 1,011       | 139,369     |
| SOUTH AFRICA |             |             |             |             |             |             |             |             |             |             |
| SUDAN        |             |             |             |             | 12,435      | 279,070     |             |             | 2,222       | 24,981      |
| TAIWAN       |             |             |             |             |             |             | 1,360       | 17,759      | 5,416       | 196,147     |
| TANZANIA     | 24,000      | 68,031      |             |             |             |             | 44,850      | 339,936     |             |             |
| THAILAND     | 692         | 1,020,521   |             |             |             |             | 988         | 639,379     |             |             |
| VIET NAM     | 2           | 17,800      |             |             |             |             | 128         | 10,806      |             |             |

**ANNEX II – UAE Information Document to the 13<sup>th</sup> Conference of the Parties to CITES, Bangkok, October 2004**

CoP13 Inf. 54

(English only / únicamente en inglés / seulement en anglais)

**Comments of the United Arab Emirates on the:  
“CoP13 Prop. 49 (Indonesia) Inclusion of Agarwood-producing species,  
*Aquilaria* spp. and *Gyrinops* spp., in Appendix II”.**

1. The United Arab Emirates (UAE) is committed to the principles of the sustainable use of natural resource and believes that this can benefit both the producing and consumer nations and also assist in the long-term conservation of these species.
2. The UAE believes that the Agarwood trade has a number of specific issues which can be summarized as follows:
  - a) Very limited information is available regarding the population size and trend of the various species of Agarwood in various range States.
  - b) The Control of trade in Agarwood at the national and international levels will be very difficult to enforce due to the nature of the commodity that can be used and traded in various forms (wood, chips, powder, oil or as an ingredient in perfumes or medicines) especially if we are aware that the use of this commodity is related to cultural and religion issues. The UAE would suggest the need for some sort of labeling system.
  - c) The importation of Agarwood in all its forms is common for personal use. An exemption for a limited amount of Agarwood chips or oil for this purpose is needed like the exemption for personal use such as for caviar & crocodilian specimens (Resolution Conf. 12.9 – Personal & Household Effects).
  - d) There were six Decisions adopted at CoP12, Santiago, Chile in 2003 ( *Aquilaria* spp. 12.66-12.71) dealing with DNA work, distribution of species, including all Agarwood species for identification purposes, the evaluation of Agarwood producing taxa to 2000 IUCN Criteria, determining population status and conducting further field research and trade dynamics in major import and re-exporting States and territories. At the 14th Plants Committee Meeting in Windhoek, Namibia in February 2004 a progress report on the above six Decisions shows that much work still needs to be done. We recommend that these Decisions be investigated fully before considering the present proposal.
3. The work of Indonesia for protecting Agarwood trees is appreciated and understood but we believe that many points should be first discussed among the importing and exporting countries before considering this proposal.
4. During the CITES Asian regional meeting in Mongolia (Aug.2002) Saudi Arabia raised the Subject of *Aquilaria malaccensis* and United Arab Emirates called for cooperation between the exporting & importing countries, but no further steps have been taken.

5. The UAE now calls to reconsider the proposal & reiterate again for the need of a formal consultation between all concerned Parties at a regional level to take place as soon as possible to address the issues of Agarwood trade and cooperation between exporting & importing countries at the regional level.

6. Due to insufficient consultation among the exporting and importing countries of agarwood, unbalance in the trade will be expected due to using the rights of reservation regarding this listing in this stage. So the postpone of the proposal will give the parties a chance to avoid this unbalance in trade.

## **ANNEX III – Decisions pertaining to agarwood, arising from the 13<sup>th</sup> Conference of the Parties to CITES, Bangkok, October 2004**

### **13<sup>th</sup> Conference of the Parties to CITES**

#### **Decisions on Agarwood-producing taxa**

##### *Directed to Parties*

- 13.61 The DNA work currently being undertaken by the National Herbarium of the Netherlands under contract to the Secretariat should continue and should be aimed at investigating the options for the development of identification tools based on molecular analysis.
- 13.62 As the trade is in the readily-identifiable product of agarwood, studies should include all known agarwood-producing taxa, not only the CITES-listed species *Aquilaria malaccensis*, and the possible inclusion of all agarwood-producing taxa in Appendix II needs to be discussed.
- 13.63 Further field research should be conducted on trade dynamics, including in the major importing and re-exporting States and territories of Southeast Asia, East Asia and the Middle East.

##### *Directed to the Secretariat*

- 13.64 The Secretariat should invite IUCN to re-evaluate the threatened status of all agarwood-producing taxa according to the IUCN criteria (Version 3.1).
- 13.65 The Secretariat shall:
- a) assist in obtaining funding from interested Parties, intergovernmental and non-governmental organizations, exporters, importers and other stakeholders to support a capacity-building workshop on trade in agarwood prior to the 14th meeting of the Conference of the Parties;
  - b) contingent on availability of external funding, cooperate with exporting and importing countries, as well as significant re-exporting countries and relevant experts, to convene a capacity-building workshop aimed at improving enforcement and implementation of the listing of *Aquilaria malaccensis* and other agarwood-producing species;
  - c) in addition to basic enforcement and implementation issues, include in the workshop a discussion of registration and labelling systems, types of agarwood products in trade and the potential for establishing personal effects exemptions for each, and the usefulness of such approaches for effective implementation; and
  - d) present at the workshop any new information from the Plants Committee on identification of agarwood products in trade, as well as information that would assist in determining sustainable harvest levels and making non-detriment findings.

## **ANNEX IV – Executive Summary of the CITES Agarwood Experts Group Meeting, Kuala Lumpur, November 2006**

### **Experts group meeting on Agarwood: Capacity-building Workshop for Improving Implementation and Enforcement of the CITES listing of *Aquilaria malaccensis* and other Agarwood-producing species**

**Kuala Lumpur, 14-17 November, 2006**

**1) Background:** The “Experts group meeting on Agarwood: Capacity-building Workshop for improving implementation and enforcement of the listing of *Aquilaria malaccensis* and other Agarwood-producing species” was held from 14-17 November, 2006 at the Corus Hotel, Kuala Lumpur, Malaysia. This Experts group meeting/workshop on Agarwood was in compliance with CITES *Decision 13.65* which addressed the need of Parties to CITES to work on capacity-building for improving implementation and enforcement of the Convention for the Agarwood-producing species: Decision 13.65, directed to the CITES Secretariat, includes the following:

- a) to assist in obtaining funding from interested Parties, intergovernmental and non-governmental organizations, exporters, importers and other stakeholders to support a capacity-building workshop on trade in agarwood prior to the 14th meeting of the Conference of the Parties;
- b) contingent on availability of external funding, cooperate with exporting and importing countries, as well as significant re-exporting countries and relevant experts, to convene a capacity-building workshop aimed at improving enforcement and implementation of the listing of *Aquilaria malaccensis* and other agarwood-producing species;
- c) in addition to basic enforcement and implementation issues, include in the workshop a discussion of registration and labelling systems, types of agarwood products in trade and the potential for establishing personal effects exemptions for each, and the usefulness of such approaches for effective implementation; and
- d) present at the workshop any new information from the Plants Committee on identification of agarwood products in trade, as well as information that would assist in determining sustainable harvest levels and making non-detriment findings.

Funds were identified by the CITES Secretariat and TRAFFIC Southeast Asia for the holding of the Experts Group Meeting, with the financial support coming from the UK Government’s Foreign and Commonwealth Office and Department of Environment, Food and Rural Affairs (defra). The Meeting was hosted by Malaysia’s Ministry of Natural Resources and Environment (MoNRE), and was opened by the Secretary General of MoNRE, Dato’ Suboh Mohd Yassin.

**2) Participants:** The Experts Meeting brought together 50 national representatives from Bangladesh, Bhutan, Brunei Darussalam, Cambodia, India, Indonesia, Kuwait, Malaysia, Myanmar, Papua New Guinea, Singapore, Thailand, United Arab Emirates, Viet Nam and Saudi Arabia. The national representatives were predominantly from the CITES Management and Scientific Authorities, as well as forestry management and research institutions. They were joined by 20 national and international

Agarwood industry participants, including growers, traders, manufacturers, importers/retailers and consumers. The CITES Secretariat, members of the CITES Plants Committee for Asia and Oceania, the IUCN Global Trees Specialist Group and TRAFFIC were also represented.

**3) Meeting Agenda/Procedure:** The Meeting comprised presentations of national reports from exporting, re-exporting and importing country representatives; perspectives from industry on production, consumption and trade regulation; overviews of global trade; research findings on resin inducement technology; and instruction on CITES procedures as they pertain to Appendix II-listed agarwood-producing species. Working group sessions were held on Day 3 and Day 4 to deliberate key issues under three broad topics: a) capacity building for CITES implementation; b) co-ordination/co-operation for monitoring and enforcement of harvest/trade; and c) review of markets and international trade.

**4) Outcomes/Results:** Following active participation by all meeting delegates in the working groups, the following were agreed by the plenary:

*a) Definitions:*

i) A Definition of Artificial Propagation to cover agarwood-producing species is needed to assist CITES implementation for agarwood-producing species. This should be prepared specifically for presentation to the Conference of the Parties, with reference to the existing CITES *Res. Conf. 10.13 (Rev. CoP13)*. As such, it is proposed to amend the current definition of “artificially propagated” for timber species as stated in *Resolution Conf. 10.13 (Rev. CoP13)* as to read:

g) timber and non-timber products taken from trees grown in monospecific plantations be considered as being artificially propagated in accordance with the definition contained in *Resolution Conf. 11.11 (Rev. CoP13)*.

ii) There is a need to separate plantation-derived agarwood from wild harvested agarwood. While at present, the CITES source codes for Artificially Propagated and Wild sourced materials should be enough to distinguish between these sources under CITES-permitted trade, it was recognised that this will need further revision once more plantation-derived agarwood comes onto the market.

iii) Various terms used in the agarwood industry (e.g. plantation-sourced materials, agarwood dust/powder, wood chips, logs, wood pieces, oil), as well as ‘non-timber forest product’ and ‘agarwood’ itself, need clear definitions. The latter was discussed with reference to when a piece of *Aquilaria/Gyrinops* wood becomes ‘agarwood’. This was referred to the CITES process for standardisation.

*b) Standard Procedures:*

i) A standardised grading system was identified as being beneficial for the management of raw agarwood products in trade, particularly wood chips. It was suggested that this should be the subject of a formal study, with funding and expertise to be identified.

ii) Standardised units of measurement should be agreed for agarwood products in trade, to facilitate better reporting and monitoring of trade.

*c) Management of Harvest and Trade, and Enforcement:*

i) There is an urgent need to assess/inventory the standing stocks of wild tree populations in producer countries. This should be referenced to the volumes of currently held agarwood stocks (i.e. raw agarwood in unprocessed forms), and conversion factors from numbers of trees to raw agarwood. This information would assist in conducting accurate CITES Non-Detriment Findings.

ii) With the aim that CITES implementation and enforcement efforts should be focused on the major forms of agarwood products in trade, the following results were presented towards amending the current Annotation #1 to the specific needs of agarwood trade management:

a) All raw agarwood products (currently reported under a variety of classifications – wood chips, pieces, logs, timber) should be covered by CITES controls.

b) Finished products, such as incense, perfume, should be exempted from CITES controls.

c) CITES coverage of partially processed agarwood products such as dust/powder and oil was debated, but no conclusion was reached. It was pointed out that while these products are not always reported in trade, that they represent a major segment of overall agarwood trade volume.

d) A similar lack of consensus characterised the discussions of medicinal products containing agarwood.

e) It was also suggested that how CITES deals with fake/adulterated agarwood, and the so-called 'black magic wood', should be further considered.

→ *these topics, and others, were recommended for further discussion at the 2<sup>nd</sup> International Agarwood Conference held in Bangkok, March 2007.*

iii) On definitions of personal effects and any exemptions, there was need for further discussion. The delegation from the United Arab Emirates offered to host a similar international workshop in late 2007 to further increase understanding of the consumer market in the Middle East, where personal effects exemptions for agarwood under CITES could be discussed in more detail and concrete recommendations decided upon. Dates and logistics for such a meeting would be determined after further deliberation by potential hosts.

iv) The application of labelling systems and registration of producers/traders was discussed without any consensus on an international way forward. National examples of registration (e.g. Viet Nam) were given, and some industry participants stated that their own labelling systems are already in place. Questions were raised about potential increases in administrative costs and where this cost would be born.

v) On targeting illegal agarwood trade, better collaboration, co-operation and communication between all the Parties involved to share intelligence was encouraged to combat illegal activities. Suggested strategies included:

- Tap into existing law enforcement networks such as Interpol, or regional initiatives like that which has been established under the Association of South-East Asian Nations (ASEAN), the ASEAN Wildlife Enforcement Network (ASEAN-WEN);
- Establish national focal contact points for agarwood law enforcement, or add agarwood issues to the list of priorities for existing law enforcement focal points.

**5) Draft CITES decisions<sup>8</sup>:** In the final plenary session of the workshop, participants agreed to a number of actions that would be best progressed through a number of new CITES decisions. The workshop participants requested that these draft decisions be submitted by Plants Committee representatives to CITES CoP14 for approval through the Plants Committee Chairman's report.

Draft decisions:

a) *Directed to the Secretariat*

14.XX The Secretariat shall assist in obtaining funding from Parties, intergovernmental and non-governmental organizations, exporters, importers and other stakeholders to support a workshop aimed at strengthening the capacity of Parties to implement Agarwood Decisions prior to the 15th meeting of the Conference of the Parties.

b) *Directed to Parties involved in agarwood trade and to the Secretariat*

14.XX Parties involved in trade of agarwood will, in consultation with the Secretariat, provide funds and produce identification materials for all forms of traded products under CITES control.

14.XX Parties concerned will identify and agree on which agarwood products and quantities should be exempted from CITES controls. Once agreed, Parties concerned will agree which range State will prepare and submit a proposal for amendment of the current annotation for agarwood producing species to be considered at CoP15.

14.XX Draft standardized units of reporting to be considered at CoP15.

14.XX Parties involved in Agarwood trade shall prepare a glossary with definitions that illustrate the content of the amended annotations, the terms used and their practical application during enforcement and border controls. The Secretariat should facilitate the preparation and production of these materials, and strategies on incorporating them into ongoing training curricula.

c) *Directed to the Plants Committee and the Secretariat*

14.XX In consultation with relevant intergovernmental organizations such as FAO, draft a definition of non-timber forest products to be considered at CoP15.

14.XX On the basis of the work on non-detriment findings for Agarwood producing species, that has been developed by TRAFFIC South East Asia and the Secretariat, the Plants Committee, in consultation with range States and the Secretariat, will develop principles, criteria and indicators on the formulation of non-detriment findings for agarwood producing species.

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<sup>8</sup> At the 14th Conference of the Parties to CITES in June 2007, these draft decisions were subsequently formalized by the Parties, with some slight amendments, into CITES Decisions 14.137 - 14.144 on Agarwood-producing taxa.

d) *Directed to Parties, the Secretariat and intergovernmental and non-governmental organizations*

14.XX Parties, the CITES Secretariat and intergovernmental and non-governmental organizations shall seek ways to share information through the establishment of networks, organization of regional workshops, capacity-building programmes, the exchange of experiences and the identification of financial resources.

## **ANNEX V – Decisions pertaining to agarwood, arising from the 14<sup>th</sup> Conference of the Parties to CITES, The Hague, June 2007**

### **14<sup>th</sup> Conference of the Parties to CITES**

#### **Decisions on Agarwood-producing taxa**

##### *Directed to Parties involved in agarwood trade and to the Secretariat*

14.137 Parties involved in trade in agarwood should, in consultation with the Secretariat, identify funds and produce identification materials for all forms of traded products under CITES control.

14.138 Parties concerned should identify and agree on which agarwood products and quantities should be exempted from CITES controls. Once agreed, Parties concerned should agree which range State will prepare and submit a proposal for amendment of the current annotation for agarwood-producing species to be considered at the 15th meeting of the Conference of the Parties.

14.139 Draft standardized units of reporting shall be considered at the 15th meeting of the Conference of the Parties.

14.140 Parties involved in agarwood trade shall prepare a glossary with definitions that illustrate the content of the amended annotations, the terms used and their practical application during enforcement and border controls. The Secretariat should facilitate the preparation and production of these materials, and strategies for incorporating them in training material.

##### *Directed to Parties and the Secretariat*

14.141 Parties and the CITES Secretariat will work with intergovernmental and non-governmental organizations to seek ways to share information through the establishment of networks, organization of regional workshops, capacity-building programmes, exchange of experiences and identification of financial resources.

##### *Directed to the Plants Committee and the Secretariat*

14.142 In consultation with relevant intergovernmental organizations such as the Food and Agriculture Organization of the United Nations, the Plants Committee in consultation with the Secretariat should draft a definition of non-timber forest products to be considered at the 15th meeting of the Conference of the Parties.

14.143 On the basis of the work on non-detriment findings for agarwood-producing species, that has been developed by TRAFFIC Southeast Asia and the Secretariat, the Plants Committee, in consultation with range States and the Secretariat, shall develop principles, criteria and indicators for the formulation of non-detriment findings for agarwood-producing species.

*Directed to the Secretariat*

14.144 The Secretariat shall assist in obtaining funding from Parties, intergovernmental and non-governmental organizations, exporters, importers and other stakeholders to support a workshop aimed at strengthening the capacity of Parties to implement agarwood-related Decisions before the 15th meeting of the Conference of the Parties.

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