Socio-Economic Committee Report on PATCHOULI - Pogostemon cablin (Blanco) Benth.

Introduction

Patchouli oil is a key ingredient in the fragrance industry. It is widely used in fine fragrances and other products from soaps, detergents, candles and incense. It is also commonly used in pharmacy and cosmetics as a very effective antimicrobial ingredient, in preparations against acne, dandruff, poison and other skin infections. It is also used as an insect repellent. In the 19th century, dried patchouli was used to prevent pests in silk via transport from China. It was considered an “odor of luxury” due to the expensive silk dresses eventually smelling of patchouli.

Indonesia is the major supplier of patchouli oil to the world market, accounting for 99% of total international trade. Other producing countries include China and India, but they are not considered in this study as they have a negligible role in the world market since all their production is consumed locally. Indonesia produces around 1,200 metric tons per year, with a value of approximately US$50-100 million. The main production areas in Indonesia are Sulawesi (accounting for around 70% of total production), Sumatra (25%) and Java (3%).

Production and processing characteristics

Patchouli oil is mainly obtained by steam distillation of the dried-fresh fermented leaves of the patchouli plant. Patchouli oil supply is continuously available throughout the year, but the peak production seasons are January and November-December. The first harvest of the plants takes place when the plant is 6-7 months old. It will then be harvested every 3-4 months, until the start is 2 years old. Planting rotation should be carried out every 2 years. Patchouli can be intercropped e.g. planted below citrus trees or grown in empty soil ready by bicycle. Distillation of patchouli, which takes approximately 6 hours, is still carried out at farm level. Patchouli oil production remains based on small farmers who use simple field distillation equipment.

Socio and economic characteristics

“...about 50,000 people get their livelihood from patchouli farming”

The patchouli oil trade chain is formed of farmers, farmers-distillers, collectors, agents and exporters. Patchouli production is a labour intensive process and requires large production areas. A typical farm family in Indonesia owns about 0.25 to 1 ha of land, to produce approximately 25 to 100 kg of patchouli oil in a year. Typical dry leaf yield per hecatare is around 4 to 5 metric tons. Thus, approximately 50,000 families in total are involved in the farming of patchouli oil. One family consists on average of 4 people. Hence, about 50,000 people get their livelihood from patchouli farming.

When talking about processing the total number of distillation units in Sulawesi and Java is estimated to be around 250 producing 900 metric tons per year. The number of distillation units in Sumatra is approximately 100 to 150 metric tons per year. If we consider that each distillation unit employs a minimum of 5 people, the total number of people employed in the total distillation process is around 2,000. The number of collectors and agents involved in the trade chain amount to approximately 300 people.

However, it should be noted that the supply for patchouli as well as for many other important flavour and fragrance natural products, especially those Wildcrafted materials is quite weak due to the pressure of land utilization, the increasing world population, the rural exodus to big cities and as a consequence the abandoning of traditional agriculture. Moreover, the lack of proper education of the farming communities and the low level of investment in equipment leads to inefficient production and low quality.

In addition, mainly due to price volatility and a lack of knowledge of good agricultural and processing practices, most patchouli growers also under take other economic activities. This results in including food production to minimize risk.

In an effort to tackle these challenges and to meet the world’s high demand for patchouli oil with sustainable supplies, the Indonesia Essential Oil Council launched the ‘Cultiva Program’ (August - October) which organizes Good Agricultural Practice (GAP) and Good Manufacturing Practice and other guidelines for sustainable, regular and high quality supplies.

The production of essential oils and other natural ingredients for the flavour and fragrance industry including patchouli oil can be seen as a sustainable factor against global warming. This is as recommended by the United Nations Environmental Programme (www.uneap.org), is a good family product for intercropping and diversification of crops. They are important also as alternative crops in areas prone to monofracter production, as seen with palm oil plantations and rubber production in Sumatra.

Conclusions

Widely used in different products from soaps to candles patchouli oil is a key ingredient in the fragrance industry. Its production in Indonesia, being the main producer and exporter in the world, supports approximately 50,000 people who obtain a livelihood from patchouli oil.

REFERENCES

IFERA 2001 - IFEAT Indonesia Study Tour 3 - 19 July 2001 - Pattaya - London - IFERA.

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