



The inventory of the rattan palm family shows round about 600 species. It is the palm family with the largest number of species. Main areas of distribution are the tropical rain forests of Africa, India, Southeast Asia and Australia. Of economic interest is especially the thick-stocking species of *Calamus* with its manifold subspecies's. The *Calamus* is in the centre of our attention.



The slim stem of the liana like rattan palm - often winding like a rope and armed with thorns or bristle – has nearly a uniform thickness about the complete length. It has a diameter of 1-5 cm and reaches after ten years of growth a length of round about 30 meters. In seldom cases it gets up to 200 meters long. The Rattan palm itself cannot grow higher – it needs the help of other neighboring trees. In its search for light it creeps up on other parts of neighboring plants. Doing this it uses spines, hairs and bristles. Without this anchorage and entanglement – in particular through scourges of the central ribs of the leaves - , it would sink by her weight to the ground, forming then a part of the so-called jungle

brushwood. The palm leaves are about 60-80 cm long. They are pinnate, alternately in regular intervals. The linear-lanceolate segments contribute to the disheveled impression. From the white flower clusters pea-size similar fruits are developing. First the fruits are white-greenish and later red.

The **wood** of the rattan palm consists of hundreds of small tubes and capillaries. This contributes to the unique properties of the rattan wood: Lightness, resilience, elasticity, weathering resistance (because of high oil content). The outer layer of the stem is harder and more durable than the inner part. Different usability's are the result.

The **harvest of stems** - mostly done by two men - is a arduous, sudorific and sometimes painful hand work. That's why the rattan palm in Australia is also called "wait are while". One worker climbs up the palm and tries to remove the shoot tangled up in other supporting trees and plants. A second worker polls from the ground, removes the sheets and cuts the shoot into shorter, transportable bars with help of a bolo (long knife). Mostly, the stem could not be harvested as one piece. There is a research ⁽¹⁾ showing that round about one third remains unattainable clinging in other plants. The rattan bars are often spread with fungicides to avoid fungi. The stem lopped off at the ground grows fast and achieves after 5-7 years its

original length.

There are approximately existing **ninety rattan species** in the Philippines, about one third is endemically, i.e. only in the Philippines native. The Calamus species is spread generally on the island archipelago; it also has the widest economic importance. An investigation ⁽¹⁾ delivered the result, that approx. ninety per cent of the local Calamus is taken from free nature. This has already led to reduced population of trees nationwide. It still remains an unanswered question if the imposed collecting restrictions and deforestation quotas of the DENR will promote the regeneration of the nature stock. For efficient controls of Calamus stocks mostly money and staff is lacking. Commercial **rattan tree farms** are found e.g. in Mindanao and Mindoro. The area of cultivation in the Philippines is round about 6000 hectares; this is quite little in international scale. Malaysia has a cultivation area of rattan palms of 31,000 hectares; the world market leader Indonesia accounts a farm area of 37,000 hectares ⁽²⁾ and has a rich nature inventory. The demand for rattan wood exceeds the supply in the Philippines. Therefore, the Philippines were already obliged to import rattan wood from Indonesia to safeguard the jobs in the local furniture industry.

Various, often labour-intensive processing steps follow, after the sorting of the bars according to size, thickness and coloring depending. Each variety finds its processing purpose. The working can include among others watering, drying, peeling, shivers, scraping, bending, coloring, special treatments for out-door furniture, binding, knotting and plaiting. Rattan gets softer and more elastic under the influence of heat (steam, Bunsen burner) and is then suitable for the production for example of basket goods.

The thick, not separated stems are often used for timber, furniture racks, handles, carpet-beaters, fighting and walking sticks. Possible use for thinner stems can be baskets, mats, fish traps, tires, bird cages and coarser wickerwork. The bark of the rattan palm serves for the production of finer wickerwork (furniture industry), casings and cords. Braiding or weaving work for example in the chair production can be very artistic. Very popular are the durable weaving structures called “Six –Steps-Structure” or “Vienna pattern”. New uses come into use. It is reported that the motor industry uses rattan for seat struts and in the context of the interior décor. And we found the information that there exist already bicycles, which have a frame made of rattan wood.

The approx. 15,000 furniture manufacturers in the Philippines employ about 500,000 workers. Another 300,000 jobs are indirectly connected with the furniture production. Nevertheless, only approx. three per cent of the furniture manufacturers have engaged more as 150 employees ⁽⁴⁾. Small businesses are typical for the **furniture production** in the Philippines. The rattan furniture manufacturers concentrate particularly on Cebu. A little more than thirty per cent of the furniture exported by the Philippines is produced from rattan. The USA is the main customer country with an export share of 67%. As the export of furniture in general, so the export of rattan furniture decreased in last years. 1999 rattan furniture have been exported in the value of 112 Mio US\$, in 2002 this export went down to 87 Mio US\$. Two reasons are responsible for this decline, the lack of rattan wood and the increased

international competition (especially by Indonesia and the Peoples Republic of China).

The Philippine manufacturer circle is more and more asked to increase the value of products. That means, i.e. to improve the quality and design claim and to leave the simpler standard products. The furniture manufacturer Kenneth Cobonpue in Cebu City has gone this way. He inherited a business in bad from his mother and developed new modern design lines, which got international reputation (5). Now he earns more money.

A German sales company of rattan furniture praises rattan furniture as follows:

"As an exotic natural material rattan furniture creates a comfortable, nature-loving atmosphere. Rattan brings together the cheerful charm of a country house, the elegant ambiance of a luxury ship or a young Mediterranean residential atmosphere – according to the wishes of the client. Furthermore, rattan furniture is very compatible with other parts. The numerous variations in innumerable designs, weaving structures, different veneers and colors offer the enthusiast all possibilities of an individual and healthy living atmosphere configuration and also a special aura of exoticism and adventure. However, it's not easy to make the right choice with regard to the variety of forms, colors and qualities (6)".

The following web pages are recommended for further product information – its only a small selection of potential sellers: :

<http://www.ceburattan.com/ceburattan.htm>

<http://store.seacresttradingco.com>

<http://www.arisedc.com/filipino.htm>

<http://www.contract-furnishings.com/rattanwickerstanjay.html>

<http://www.wohninsel.de>

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(1) Philippine National Report on Bamboo and Rattan, in:
<http://www.inbar.int/documents/country%20report/Philippine.htm>

(2) State of the Sector Report on Philippine Furniture 2004, in:
<http://www.policyaim.edu.ph/download/CHAMBER%20FURNITURE%INDUSTRY%20REPORT%-202004%20%5BREAD-ONLY%5D.PDF>

(3) <http://www.wohninsel.de/Service/Tattanpflege/rattan.htm>

(4) WINNER- TIPS-A Quick Look at the Growth of the Philippine Furniture, in:
<http://www.winner-tips.org/article/aticleview/469/1/1b>

(5) Alexandro A. Seno, It's A Rattan Business, in ASIA TIMES, 30.11.2001

(6) <http://www.meyers-muehle.de/rattan.htm>