



International Network for Bamboo and Rattan

RATTAN FURNITURE UNIT

AN AGE-OLD MEANS OF BRINGING COMFORT AND INCOME

Source of the Technology
Expected Benefits
Suitable for

Many locations since Roman times.
Income generation, skills enhancement and capacity building, possible export earnings.
Community members, individual entrepreneurs.

Key Words

Rattan, furniture, income generation, export markets.

Rattan furniture making unit



Rattan furniture has been produced since Roman times. The furniture is elegant, stylish and highly popular in many countries. During the early part of the 20th century most of the rattan furniture was produced in affluent countries that imported raw rattan from producing countries. Nowadays furniture is manufactured in the raw material-producing countries and so the benefits of the high value-addition that manufacturing imparts remain in the producing country.

Impact on Poverty

A rattan furniture making unit will provide a significant number of jobs to local people, both in the unit itself and in its forward and backward linkages. The unit is non-polluting and can be established in conjunction with a number of other related units, such as the steam bending unit and the rattan oil curing, bleaching and preservation unit as an integrated community project. The unit should only use rattans harvested from sustainably managed forests or plantations, and thus promote environmental protection. Local plantations could be established to supply the unit.

The main development attributes of the technology are as follows:

- Creates a large number of income generation opportunities.
- Increases community welfare.
- It is suitable for men and women.
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- It promotes rattan furniture as a substitute for timber-wood furniture.

The main advantages of the technology are:

- The furniture is durable, light and popular.
- The unit can easily be adapted to the production of a wide range of different designs.
- The same sub-assemblies can be used for a number of different products.

The unit will create employment and income generating opportunities for a wide range of people and will improve the economies of the rural communities in which is established. The income generating potential of the unit is considerable because of the high level of value addition the processing imparts, and if established as a community cooperative venture and well run, the community should benefit considerably. Increasing the area of rattan plantations and improving management practices will benefit the local environment and those involved with their cultivation.

Key points for success

Adequate financial investment will be needed to establish and run the unit. The unit can be best run as small and medium scale industry (sole proprietorship). It is also suitable as a community cooperative business since the village stakeholders can be the workforce. A ready supply of semi-processed rattan canes will be needed, as will good market linkages to buyers of the furniture and suppliers of other materials needed in its manufacture.

Making rattan furniture

Rattan furniture is produced by the following basic steps

1. Selection and classification of poles
2. Straightening of poles
3. Measuring poles and cutting to length
4. Bending and moulding poles

(The first four of these are done in the steam bending unit and details will not be included here. Please refer to the Steam Bending Technology Page for more information)

5. Drilling, grooving and end-coping components

Many rattan furniture components, especially the seat and backrest, are drilled with a series of holes for inserting slats (smaller rattan poles) or grooved for inserting webbing.

Depending on the shape of the furniture components, the drilling and grooving are done either prior to or during the assembly process. For the straight components, drilling and grooving are achieved using bench-drill units. For the moulded components, drilling and grooving are done manually using a hand drill when the basic frame is assembled.

6. Assembling components

The furniture components are assembled together to form the frame structures. Screws and nails are commonly used to join the components.

Assembly is done in two stages: a) sub-assembly to form basic frame structures and b) final assembly to attach additional components. A basic frame structure is made of components such as legs, arm supports, backrest and seats. The additional components include leg bracers, seat slats and back slats.

7. Binding and weaving components together

Various types of materials have been used in the industry for binding and weaving. The popular materials are rattan skins, splits and cores. Sometimes leather and plastic strips are also used. While leather bindings are normally chosen for the high-end rattan furniture, plastic bindings are gaining popularity in the low-end markets.

8. Scraping and sanding

Scraping and sanding are used to smooth the surfaces of the components. The work is done at various times during the workflow and can be done after cross cutting, after bending and moulding, after assembly and during the finishing process.

After bending, sanding is required to polish the rough rattan surface due to the steaming process or to remove burn marks caused by the blowtorch. Scraping is done using a hand scraper to remove excessive putty (the paste applied on to fill holes and gaps in rattan frames). A pneumatic hand scraper is used to level the protruding rattan cores that have been plugged in to hide the screw or nail heads.

9. Finishing

Finishing may involve painting or varnishing and is an important stage to ensure the final quality of furniture. Spray guns powered by compressed air are used for spraying.

The best finishing quality can be achieved in enclosed spraying rooms equipped with spray booths and a proper exhaust system.

The workers must wear proper personal protective equipment (PPE) that conforms to the standards imposed by the government.

Uses and Markets

The market for rattan furniture is very large and it accounts for a significant proportion of the export earnings of countries such as Malaysia and Indonesia. The international markets are particularly lucrative, and much of the rattan furniture produced is sold to more affluent countries in Europe and America. The markets are expected to continue to develop.

Financial aspects

A rattan furniture making unit requires considerable start-up capital, land, and reliable supplies of raw materials, labour, electricity and water. The unit on which the information in this Technology page is based would cost USD \$ 84, 000 to establish and USD \$ 53, 000 to run each month, and would generate pre-tax profits of USD \$10, 000 per month.



References and further reading

INBAR's Rattan Furniture Unit Transfer of Technology Model: <http://www.inbar.int/totem/totemdetail.asp?id=20>

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