

# **RATTAN FURNITURE AND NUTGRASS MAT CLUSTER OF NAGAPATTINAM DISTRICT**

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This case was prepared from the inputs of Village Immersion Program (VIP- 2018) of BIM, Trichy. The author would like to thank all the six Batch-35 students of BIM, Aravindasamy MS, Gadiraju Pradeep Raju, Megha P, Sachin Vignesh G, Srihari V and Preethi M, who were part of VIP-2018.

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In Nagapattinam district of Tamilnadu State, most of the bamboo-based industries are located in Kollidam block especially in Thaikkal and Thulasiyendrapuram villages of Anaikkaran chathiram Panchayat. These villages are located 72 KM towards North from District headquarters Nagapattinam, and 235 KM from State capital Chennai. There are 500 bamboos and cane-based furniture industries in Thaikkal with an annual production of Rs 2 crore and providing employment opportunities for over 5000 workers.

The Rattan furniture and korai mats cluster has a huge growth potential and is a major source of income and employment for the local population. It is limited by some gripping problems like difficulty in procuring raw materials, labour issues, lack of financial assistance, absence of trade associations in particular to rattan furniture and korai mats and the lack of specific assistance or promotional measures from the government. Changing trends in people's lifestyle also reduced the customer base in case of Korai mats. There is a compulsive need for intervention because of the possible erosion of livelihood, the risk of extinction of rural industries and economies, possible exodus of heritage and cultural identity, loss of historical importance and the possible migration to urban areas.

## **Background**

The tradition of making rattan furniture's in Thaikkal (a village in Kollidam Block of Sirkazhi Taluk in Nagapattinam District, Tamil Nadu) found its mention in the report of "A survey of cottage industries of Madras Presidency, 1929", wherein, it is mentioned about the existence of rattan industries from time immemorial due to the natural growth of superior quality of rattans along the Coleroon (Kollidam) margin. Around 80 percent of bamboo forests lie in Asia with India, China and Myanmar having 19.8 million hectares of bamboo. Though India is the world's second largest grower of bamboo with 136 species, spreading over 13.96 million hectares, the country's share in the global bamboo trade and commerce is only 4 percent. In India, nearly 19% of the total Bamboo produced goes for Handicraft

production. According to Innovius Research estimates, Bamboo and Cane craft market in India is estimated at INR 3,910 Crores in 2016 and estimated to grow at a CAGR of around 6-7% during 2016-2021. The market is primarily driven by rising demand of eco-friendly products in India and several Government initiatives to back bamboo-based product industries. India is one among the top 10 importers of the bamboo and rattan products.

### **Thaikkal Village**

The total population of the village is 3190 comprising 1545 people in Thaikkal and 1645 people in Thulasiyendrapuram. About 35% of the houses are RCC houses, 15% are red tiled roof houses and remaining 50% are huts and houses built under various government schemes. All houses in the village have toilet and electricity facilities. Overhead Tanks, hand pumps and borewell facilities gives the drinking water to the inhabitants. Groundwater is available in 20ft - 25ft and no underground drainage facility was installed in the village. This village has local municipal workers assigned to collect the garbage from all the houses in the village on a daily basis. Thaikkal doesn't have proper waste management system. Daily one tractor load of garbage is collected from the houses and just dumped along the banks of Kollidam river. Almost 95 percent of the people are Muslims and their burial ground is located near the Mosque in the centre of the village. Road facilities are available in all places of the village. In few streets, the government has laid cement roads. Thaikkal village contains one Elementary school in Santhathoppu and one higher secondary school in Thulasiyendrapuram. There is one Anganwadi located in the village inside the Thulasiyendrapuram High school. There is a ration shop available in TPM Nagar of the village. The government is supplying entitled goods through PDS on every Wednesday of the week through that shop. More than 60% of the villagers are employed in Rattan and Korai mat industry. Other people are working in small shops, hotels. Most youngsters aspire to go abroad like Middle east, Malaysia and Singapore and work as skilled or unskilled labours. Women in the village are involved in finishing jobs in rattan or korai mat industry mostly from inside the house. More than 90% of the villagers are literate. The nearest government hospital is in Maahanampattu which is two km's from the village. The women self-help groups are not involved in an employment generation activity. They loan the money they get from banks to meet their general financial needs. As stated earlier, there are 500 bamboos and cane-based furniture industries in Thaikkal with an annual production of Rs 2 crore and providing employment opportunities for over 5000 workers.

## **Handicrafts**

In South India, this artwork had evolved into its present form as a high quality standard fine art as a result of the socio-religious, cultural and spiritual aspirations over many hundreds of years. There are many such age old, unique, traditional and historical craft traditions that dates back to thousands of years in India such as pottery, woodwork, textiles, sculpture, jewellery, painting, metalwork and more are in the verge of decline.

There is erosion of livelihood as the pride of age-old craft traditions is somewhat overtaken by the societal pressures that forces the people to leave their dynastic vocation to join mainstream options that gives them social standing in the form of earnings, better living standards and societal respect. There is also a stress of lack of education, poor finances and low work order that drives them away from the trade. Many of these livelihoods are fast vanishing and some of them are in the verge of even extinction. The skills and wisdom built over centuries takes the backseat while the youngsters rather like to work for the jobs that demands less skill and sophistication but, pays them more than they will otherwise earn. The 2011 migration data shows that, for the first time since 1921, urban India added more numbers to its population in a decade than rural India. This migration cannot simply be viewed as moving away from their homes and villages where they occupied for centuries, but in fact, they moved away from livelihoods that puts more pressure on the urban dwellers and administrators.

The traditional handicrafts sector is also suffering from basic problems of being in the unorganized sector with additional constraints like lack of education, capital, poor exposure to new technologies, absence of market intelligence and poor institutional framework. Improvement in educational system and lifestyles of the middle-class people contribute a lot for the eroding of the native crafts in India.

## **Rattan Furniture**

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. 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. The current manufacturing methodologies in the Nagapattinam district is also very primitive and it does not use any specialized machines. Most of the processes are done manually using human labour. Annexure-1 explains the manufacturing process. The availability of labour is irregular and there is no upgradation of skills towards newer designs. The customer base is also developed mostly through 'Word of mouth' advertising and traditional channels. Further, no steps are taken towards increasing the customer base like usage of ICT. Procurement of raw materials is also a concern as only major traders could import/ buy from wholesalers. All others had to get the raw materials from larger traders at much higher prices. The only way is to get lower quality materials. Since it is a price sensitive product, customers would like to pay/buy the low cost products thus compromising on the quality. Further, there are no standards on pricing the product, this paves way for undercutting and associated problems. The lack of association or a cooperative society specifically for rattan and korai mat traders results in no bargaining power with respect to raw materials procurement and selling price. Also, only some schemes are available for the traders to get loan from the bank for their working capital and they are unable to get subsidies. The financials for existing rattan manufacturers can be seen in Annexure-2.

### **Korai Mat**

Mat weaving is an important traditional handicraft of Tamil Nadu which is famous for its korai dry-grass mats. Mat weavers from here not only create intricate patterns and designs, but mats are multi-coloured and often represent the ornate pallav of traditional silk saree from Tamil Nadu. Mats made with korai / sedge grass are extremely delicate and highly valued. Korai grass (*Cyperus corymbosus* Rottb.) is found in abundance along the banks of the rivers and its marshy areas in Tamil Nadu. The mats made in Thaikkal have the nut grass sourced from the nearby villages like Olayamputhur, Arasur, Erukur. They cultivate and harvest nut grass in Thaikkal also. Mats are made in numerous colours and designs. The mats are produced in various sizes and shapes to serve different purposes such as hanging on walls, worshipping, covering the floor, sleeping, etc. Excellent fancy items like bags, purses, baskets and hand-fans are also made from korai grass. The Korai mat and rattan furniture producers and traders co-exist in the same cluster. Though the availability of raw material for korai mat is not a big concern, as they are raised from surrounding villages, all other concerns

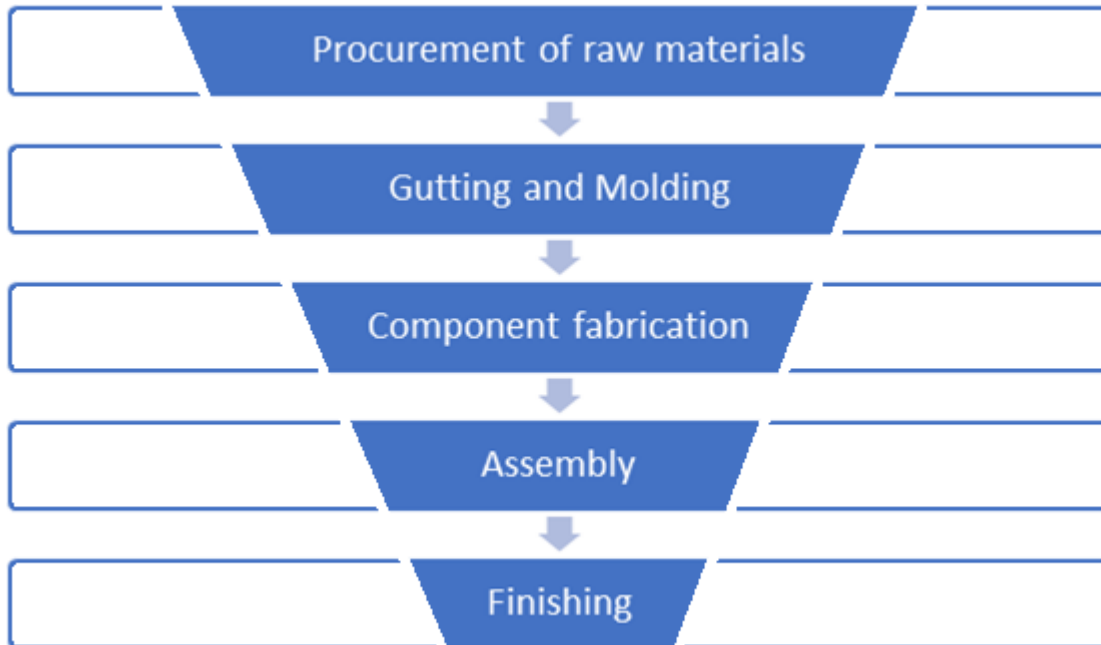
as evidenced in rattan producers is also present for korai mat weavers and traders. The manufacturing process of Korai mats can be found in Annexure-3.

### **Way Forward**

As there are close to 500 families involved in this traditional cluster and the next generation of these families are not ready to take up this business because of the difficulties faced by the existing traders, there is a greater need to protect the existing families by enhancing their capacity and hence try reduce the poverty level or increase the income level, there-by migration need to be reduced. An enterprise plan for improving the livelihood of the villagers can also be thought of. The successful execution of the enterprise plan will not only lead to the increase in the income levels of the farmers but also creates several jobs for the rural men and women that will in turn benefit the entire village to grow with sustainable development.

## Annexure – 1

### EXISTING MANUFACTURING PROCESS OF RATTAN FURNITURE:



#### **Procurement of Raw material (Rattan)**

The bamboo-based products produced in Thaikkal and Thulasiyendrapuram are made from three types of bamboo species raw material, which are available from different parts of the world. One type of bamboo imported from Malaysia, and Indonesia by wholesale traders in Chennai and another one bamboo species available at Andaman and North Eastern states like Assam which are also bought by wholesale traders of Chennai and Kolkata, and third type of bamboo raw material is available in local area. Some owners of bamboo-based industries have been purchasing their raw materials from whole sellers of Chennai directly who are doing business at large scale. Some small and medium scale industries owner has been getting their raw material from local retailers which are located at Thaikkal and Kollidam. Individual traders buy the raw materials directly from different agents and dealers who are in link with the suppliers of rattan. Some traders source raw materials from dealers in Chennai and Kolkata.

#### **Gutting & Moulding**

Selected pieces from the received timber bundle, each piece of rattan is carefully cross cut into lengths required. The pieces of rattan are then bundled on pallets, which is then processed through moulding to achieve required shapes and sizes. Documentation and identification of each bundle is properly done, to ensure chain of custody procedure is followed.

### **Component Fabrication**

Large diameter dried rattan can be used for making the frame of the furniture and the small sized rattan are used for binding & weaving the frame. The most commonly used weaving patterns are Circular weaving, Rectangular weaving, Cross weaving, Spiral weaving, Hexagonal weaving, Square weaving, Twisted weaving and V-shaped weaving. Moulded rattans are handled by different tools depending on its shape and design to acquire its features. These components are then carefully sanded to round all sharp edges and smoothen out all surfaces.

### **Assembling**

Each component is then assembled accordingly, to form the part of the Rattan Furniture. Joints are glued together to form a strong bond. Assembled parts are then stacked together and labelled for traceability.

### **Finishing Works**

Assembled parts are then processed with final finishing or polishing. Polishing the surface acts as repellent of wood destroying insects, fungicide, as well as providing some weather and UV resistance to the wood.

**Annexure – 2**

**FINANCIALS FOR THE EXISTING RATTAN MANUFACTURERS**

**STAFF AND LABOUR [per month]:**

<b>S.NO</b>	<b>DESCRIPTION</b>	<b>NOS</b>	<b>SALARY [Rs.]</b>	<b>TOTAL SALARY [Rs.]</b>
[a]	Skilled & Unskilled			
1.	Frame Master	1	40,000	40,000
2.	FM Assistant	1	10,000	10,000
3.	Finishing Worker	1	15,000	15,000
4.	Helper	1	9,000	9,000
	Total Perquisites @ 15%			74,000 11,100
	Grand Total Say Rs.			85,100 85,000

**NOTES:**

1. All income is calculated on daily basis.
2. Frame Master, FM Assistant and Finishing Worker works for only 20 days.
3. Helper works for 30 days in a month

**RAW MATERIAL [per month]:**



S. No.	Type of Material	Quantity	Cost Per Quantity [Rs.]	Total Cost [Rs.]
1.	Export Materials	120 bundles	1,000	1,20,000
2.	Natural Cane	320 kg's	250	80,000
	Total Perquisites @ 15%			2,00,000 30,000
	Grand Total (say)			2,30,000

**NOTES:**

1. One bundle contains 20 pieces of Rattan cane.
2. Natural cane is sold in kilograms.

**UTILITY [per month]:**

DESCRIPTION	QUANTITY	PRICE PER QTY	TOTAL PRICE [Rs.]
Electricity	217 units	4.6 /-	1,000
Water	LS	LS	40
Rent			2,000
Total			3,040

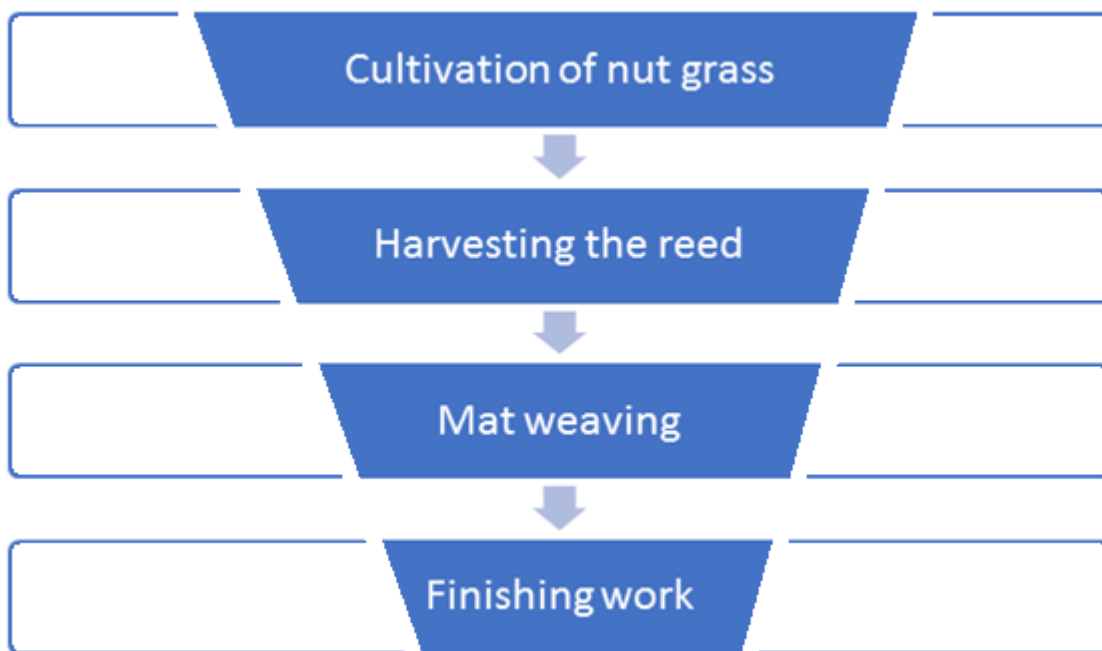
**OTHER EXPENDITURE [per month]:**

Sr. No.	Description	Amount
1.	Stationary and Phone	500
2.	Repair and Maintenance	750

3.	Transportation	6,000
4.	Taxes	12,900
5.	Miscellaneous	5,000
	<b>Total</b>	25,150

### Annexure – 3

#### EXISTING MANUFACTURING PROCESS OF KORAI MATS



#### **Cultivation of nut grass**

The nut grass is grown and cultivated in the fields of Olayamputhur, Arasur, Thaikkal, Erukkur, Pattavila gam, Kizhamathur and they are used for manufacturing Korai mats in Thaikkal. Once the seeds are sowed, they can be harvested for 12 years.

#### **Harvesting process**

After cultivation, the crops are harvested twice a year. It can only be harvested, if the height of crop reaches a minimum of approximately 5 feet. Splitting of the nut grass is done by using a machine. They are dried under the sunlight. After drying, the grass will be coloured for the designer mats by using the dye's. The grass will be packed into many 'allu's. One

'allu' consists of a roll of nut grass with an effective diameter of 18 inches. The grass is then stored in form of bundles in the inventory and one bundle consists of 4 'allu's.

### **Mat weaving**

The mats are weaved using the machines, where the grass will be inserted based on the customization of design strips. Different weaving machines are used for making different designs in mats. By adjusting a provision in the machine, the density of nut grass of the mat can be adjusted, hence adjusting the quality of the korai mat produced.

### **Finishing work**

The sides of the unfinished korai mat produced by the machine, are cut to specified width of 4 feet uniformly. A strip of cloth is stitched along the sides of the mat using a simple hand loom machine. Surface finishing is done manually to remove all the small defects in the mat.

The mats are distinguished mainly based on the designs and quality. Altering quality can be done in the weaving machine itself. The machine can also be used to produce complex designs by making several adjustments, but to operate these complex machines, skilled labour is required.