

# Report on

Packaging Intervention at Craft Clusters



### Submitted by:

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### **EXECUTIVE SUMMARY**

Packaging has become a very important function for the export business especially in the field of Handicrafts where multiple type of Products have variety types of Critical Factors. Besides, there has been a demand raised by the various Importers from the developed countries on Sustainable Packaging requirements to be used by replacing plastic based Packaging materials. As the Indian exporters have to compete in the world market, hence the understanding of Packaging needs and designing the packaging as per the International market standards has become of the most important areas of work for all the Handicrafts exporters.

In accordance with the above, this project was undertaken by M/s Dr. Madhab's Packaging Consultancy and Management Solutions LLP led by Dr. Madhab Chakraborty, Packaging Advisor to the EPCH (Retd. Joint Director and Regional Head IIP Delhi). The project was divided into two phases.

#### Phase 1:

In the first phase, the visits were made to the Handicraft clusters at various leading exporters factories which were identified by the EPCH. Total 9 places for different clusters were visited.

The places were: Agra, Firozabad, Moradabad, Saharanpur, Jaipur, Jodhpur, Mumbai, Kolkata and New Delhi.

During the exploratory visits, total 46 factories were visited. The current packaging used in those factories were analysed and the current packaging issues and corrective needs were discussed.

On the spot suggestions were given by the Packaging Expert on the following points:

- Alternate Packaging materials and designs to solve the issues
- Demonstration given with alternate Packaging designs
- Suggestions were given on Cost Reduction
- Suggested Sustainable Packaging materials in place of plastic based materials
- Different types of samples were selected for Prototype Development and Keyline Drawing
- Alternative Packaging at low cost, Sustainable Packaging and KLD for the same were developed and demonstrated during the Workshop
- Total 9 Prototypes and KLD were prepared and handed over to EPCH. This has resolved the Packaging issues faced by exporters in International markets. The Prototypes are provided in this Report

#### Phase 2:

In phase 2, workshops were organized at all the visited clusters which were organized by the EPCH. During the workshops, all the member exporters including EPCH Board Members, industry leaders and packaging suppliers were present. The Principles of Packaging were explained with the requirement of Packaging materials.

A total of 9 workshops were organized at: Agra, Firozabad, Moradabad, Saharanpur, Jaipur, Jodhpur, Mumbai and Kolkata and New Delhi. Total 526 participants attended the workshops and taken the benefits from the same. The areas covered in the Workshops were as follows:

- Basic Functions of Packaging
- Critical Factors of different Handicraft items were discussed in detail
- Distribution Factors, Transport, Handling, Storage and Logistics for Exports and the Packaging requirements
- Packaging materials used and a sustainable Packaging solution
- Alternative Packaging designs with Cost reduction in Packaging
- Packaging materials were demonstrated
- Video shows were displayed on Packaging Testing and Packaging methods
- Physical prototypes of Packaging along with KLD were shown
- Finally a Q&A session was kept were queries of Exporters were addressed

The above workshops were done for the improvement and overall knowledge of exporters and to resolve the Packaging issues including Sustainable Packaging. All the participants were highly satisfied with the programme. The Feedback of all the participants were taken by EPCH and the overall feedback has to been found to be highly satisfactory

Here are the details of the suggestions given for different clusters:

### Firozabad:

- As products of Firozabad are highly fragile and their weights vary from 150gm to 20kg, the critical factors were to reduce the breakage % and to replace plastic based foam with Sustainable Packaging material
- o It was suggested to use CFB fitments in the CFB box design in suspended condition in place of plastic foam. This suggestion has replaced the use of moulded EPS, EPS Sheets and Bubble Film. The prototype design with KLD was shown. This design was made with 100% paper based sustainable solution replacing all the plastic foam. It was drop tested in front of the exporter.

- o Suggestions were given to reduce the number of plys in CFB box by changing the Corrugated Board specification
- o Honey comb paper wrapping was suggested to reduce the volume of Packaging in place of EPS(thermocol)

### Agra:

- Marble Products are heavier and fragile to handle. Hence, to reduce the breakage and chipping at the edges was the challenge in this cluster. Approximately 10% of companies were using CFB buffer fitments in place of plastic foam
- It was suggested to use CFB buffer fitments to replace the thermocol and EPE foam. This would reduce the use of plastic foam for the exports and also stop breakage and damage of the marble products
- It was suggested to stop the use of cloth tape at the corner of the boxes since it was not adding any value in the technicalities. This would reduce the Packaging cost
- o It was suggested to use all the CFB boxes with glue-joint in place of staple joint.
- o Paper based tape was suggested in place of BOPP tape as it would provide a more sustainable option for exporters.
- o Furthermore, a gift pack was designed by using CFB fitments in which 20% to 30% cost reduction was achieved. The KLD and prototype was shown.

### Saharanpur:

- Decor Items, Kitchen Items and Furnitures were the major products exported from this cluster. It was reported that the issue of Corrugated Box collapsing, moisture seepage of the box and handling instructions on the boxes were missing
- It was suggested to use starch based adhesives in the corrugated box instead of silicate adhesive to solve the problem. Use of EPS, EPE foam fitments, cross-taping were the major findings in the packaging. It was suggested to stop this and replace the fitments by using paper based fitments as a sustainable packaging solutions.
- It was also observed that over packaging was done in many cases. The low cost CFB fitments based Packaging has been shown to reduce the overpackaging as well helping with cost reduction. The prototype with KLD was made and shown.
- o It was suggested to use handling instruction labels like 'this side up' etc. which are helpful to keep the furniture boxes to keep in the upright position. This solves the breakage and damage problem.
- Paper honey comb wrapper was suggested to replace the plastic foam.

#### Moradabad:

- The major products of Moradabad are Brassware of different kinds. The major challenges were with combination products of Brass with Marble base, Wooden Frame and Glass Top
- This problem was solved by taking up a project showing 100% Corrugated Fibre board based packaging replacing all plastic foams like EPS, EPE, bubble film etc. This was done and drop tested and found to be 'Passed'. The prototype box along with key line drawing was shown as a solution.
- Another issue of Moradabad based products were related to Cost Reduction in the Packaging. It was suggested to redesign the CFB box with 5-ply CFB in place of 7-ply CFB Box by keeping the strength same which would reduce the packaging cost.
- Paper wrapper was also suggested in place of bubble film.
- Paper gum tape was suggested in place of BOPP tape. This will give sustainable packaging solution

### Jodhpur:

- Major products of Jodhpur were Wooden Furnitures of various sizes and weights. Huge quantity of plastic based foam and plastic based corners was being used
- It was suggested to use CFB buffer, CFB corner to replace all plastic foam and this would solve the sustainability issues during the exports.
- Cross-wise taping was found in various places and itw as suggested to stop unnecessary cross-wise taping to reduce the cost
- o It was further suggested to stop using cloth tape in the CFB box which would reduce the Packaging cost
- o In few cases, the use of 7-ply corrugated board was suggested to be replaced by 3-ply corrugated board inside of the box. This helped in reducing the Packaging cost
- o In terms of Marble exports from Jodhpur, CFB buffer was suggested in place of thermocol and EPE based Packaging. This would reduce the plastic foam and provide the sustainable solution for exports.
- The paper based pallet is suggested in place of the Wooden pallets used in the packaging.

### Jaipur:

- o The products include: Blue Potteries, Wooden Furnitures, Textiles Articles, Paper Mache, Kitchen Accessories and Decorative Articles
- o It was suggested to reduce the overpackaging observed during the Advisory Visit. Bubble Film wrapping of multiple times for smaller articles was found to be expensive. Demonstration was shown with New Minimalist Packaging design at lower cost.

- Lots of spaces were found in the Packaging of small gift articles where it was suggested to reduce the volume of the box which would further save the freight and packaging costs
- It was suggested to stop usage of Cloth Tapes in the box. This saves packaging cost
- RSC box was suggested instead of CSC box in Master carton. It saves cost.
- It was also suggested to us strapping in two places instead of four places strapping, which would acheive the lower cost packaging.
- 3-ply CFB fitments was suggested instead of 5 -ply fitments used for Packaging of Sofa. CFB buffer corner was suggested in place of EPE foam corner. This was the Sustainable packaging solution.
- o In few cases, box quality was not upto the mark due to the absence of creasing lines. It was suggested to use proper creasing machines to get the box appropriately creased.
- o In many cases, BOPP taping was found to be done in excess by overlapping. It was suggested to apply the tape in 'H' fashion instead of overlapping. This would achieve the benefits the time saving and reducing the cost. An unique CFB fitments were suggested to stop the breakage of box in place of earlier design. This will stop the box collapsing during the stacking.
- Paper gum tape was suggested in place of BOPP tape. This will give sustainable packaging solution.

### Mumbai:

- o Major products of Mumbai were found to be Agarbatti, Candle, Perfumes, Stone Idols and other Merchandise
- Cost reduction in CFB box was suggested for Agarbatti Packaging by reducing number of plys. Anti-counterfeit Packaging was suggested by using holography stickers with proper adhesion strength onto the boxes.
- A separate gift Packaging for Agarbatti was suggested where tray type rigid board carton with cloth handle. This would be more attractive and serve as a value – added packaging for Premium products.
- o In many cases, the size of the boxes for Stone Idols were found not appropriate. Due to that, a lot of cushioning materials were used as a space-filler. It was suggested to use proper size boxes to reduce the extra cushing materials fitments and Packaging cost.
- In case of furniture Packaging and Packaging of Antique Products, it was found old imported CFB carton were used for wrapping purpose. It was suggested to use 2-ply CFB rolls in place of old CFB and it was suggested to use freshly prepared Corrugated box for Packaging purpose to get stronger box.
- o For furniture Packaging, Pallet based Packaging was suggested. Sustainable Packaging solution was given by using Honey Comb Paper wrapper and CFB buffer fitments instead of plastic based cushioning materials.

### Kolkata:

- o Products include various types of Wooden Furnitures, Leather Wallets, Fabric dress materials and Musical Instruments, Gift Articles, Leather and Jute Bags.
- o It was suggested to use CFB boxes in place of ply wood boxes used for Packaging of Furnitures. Huge quantity of Packaging materials were found as inside fitments in **Packaging of Furnitures**
- o It was suggested to remove the non- woven fabric inside the Packaging as Furniture was wrapped with blanket. This led to the reduce of Packaging cost
- It was found that lot of cross-taping in the CFB boxes was used in the Packaging of Fabric dress materials, Leather wallet, Silk articles. It was suggested to stop the cross taping leading to cost reduction and professional packaging.
- o It was suggested to use the tape in H- fashion which would lead to reduction in Packaging cost. Corrugated Box caused moisture as well as fungus problem for Leather Products
- o It was suggested to use boxes in dried condition with moisture content (8-10%).
- o It was also suggested to use adhesive with anti-fungal chemicals to stop fungus related problems with Packaging.
- o It was found that four-joints CFB box was used for Packaging of Musical Instruments. It was suggested to use single-joint box in place of four joint box to get the maximum Compression strength of the CFB box.

### New Delhi:

- Products include various types of Gift Items, Artificial Jewellery, Fabric Items, Decorative Items, Cushions and Metal Products
- o In many cases, it was found that over packaging was done and it was suggested to use 5ply corrugated fibre board box in place of 7-ply corrugated board box which would reduce the Packaging cost. In case, the buyer has specified, we do not have comment on it.
- Single Joint box was suggested in place of double joint box to get more compression strenth.
- The problem of damage of Paper Globe product for the exports was solved by changing the Packaging by using CFB box fitments instead of bubble film and thermocol used in Packaging earlier. The prototype packaging was shown along with KLD.
- The problem of damage of decorative items was found due to improper size of the boxes. It was suggested to use proper size of the box to stop the movement of the product inside. It was also suggested to use proper fitments to stop the movement.
- o Paper honey comb cushioning wrapper was suggested instead of EPS. This was an sustainable packaging Solution.
- Cupa board based rigid box with gold foil stamping and embossing was suggested for Gift Box for E-commerce business.
- Jerry-based thread gold or silver printing was suggested for Jute hand bag. It was suggested to use 5-ply CFB instead of 7-ply CFB to reduce Packaging cost.

- The issue with Packaging of Paper Mache Balls was discussed and solved. It was suggested to use Silicone coated Paper wrapper for each ball to get rid of scratching during the transit. It was suggested to use fit to the box packaging to avoid loose fit inside the box.
- It was suggested to refrain from cross- taping to save the cost.
- It was suggested to replace all thermocol and EPE foam by using paper based CFB fitments and Paper Honey Comb wrapper for Packaging of all Metal Articles. This is a sustainable packaging solution.
- o Damage of Metal Idols was found due to improper sizes of the box used. It was suggested to proper size of the box to stop the movement and damage of the products.

Finally, it is concluded that the activity was very much beneficial for the exporters and continuous support to the industries would be very much helpful for the future exports of Handicrafts.

It is suggested to cover more industries in the different clusters by arranging the factory visit and workshops. It is also suggested to incorporate Technical Packaging Specifications to be used by the Exporters and Testing of Packaging Materials to be done regularly to maintain the quality of the Packaging materials.

### Some Abbreviations used throughout this Report:

**EPCH:** Export Promotion Council for Handicrafts

**CFB**: Corrugated Fibre Board **EPS:** Expanded Poly Styrene **EPE:** Expanded Poly Ethylene

**BOPP**: Biaxially Oriented Poly Propylene

**TWT:** Transport Worthiness Test

**KLD**: Key Line Drawing

**DMPCMS:** Dr. Madhab's Packaging Consultancy and Management Solutions LLP

### **INDEX**

S.No	Topic	Page No.
1.	Introduction	10
2.	Objective	11
3.	Methodology	12 - 13
4.	Highlights of Advisory Visit/Workshop at Firozabad	14– 24
5.	Highlights of Advisory Visit/Workshop at Agra	25 – 36
6.	Highlights of Advisory Visit/Workshop at Saharanpur	37 – 47
7.	Highlights of Advisory Visit/Workshop at Moradabad	48 – 59
8.	Highlights of Advisory Visit/Workshop at Jodhpur	60 – 68
9.	Highlights of Advisory Visit/Workshop at Jaipur	69 – 79
10.	Highlights of Advisory Visit/Workshop at Mumbai	80 – 88
11.	Highlights of Advisory Visit/Workshop at Kolkata	89 – 96
11.	Highlights of Advisory Visit/Workshop at New Delhi	97 – 110
12.	Cost Comparison and Analysis	111
13.	List of Packaging Suppliers	112 – 113
14.	Summary of the Report and Way Forward	114 – 115

### INTRODUCTION

EPCH (Export Promotion Council for Handicrafts), is an apex body of handicrafts exporters for promotion of exports of Handicrafts from India and projecting India's image abroad as a reliable supplier of high quality of handicrafts goods & services of international standards and specification. Since inception, EPCH has given a big growth of the Handicrafts Industries Exports from the Ground level to very high level. The contribution to all the exporters from of the different cluster of the handicrafts has received supports from different angles like organizing exhibition of the International level, Buyers Sellers meet, Experts & Designer of handicrafts of International Rapport, Advance information on Marketing and exports handicrafts, organizing Seminars at the international level etc. With all these efforts, the exports of Handicrafts have been given a top place for India in the World market of Handicrafts. The Handicrafts Export market reached a worth of Rs 32, 759 cr (2023-24).

Over a period of time, many challenges are also arising like selling competition, introduction of new designs, Marketing, regulation changes globally on environmental pollution etc.

One of the major requirements in the overseas market has been identified as packaging upgradation. In this regard, EPCH has taken an initiative to help the exporters to improve their Packaging to make it much more attractive, aesthetic, high quality at cost competitive or less cost, latest packaging concept and sustainable packaging as per international needs. Major steps have been taken to make the packaging of the handicrafts much more stronger to meet the target of our country "TEEN GUNA TEES TAK" in this current year.

In this regard, our company, Dr. Madhab's Packaging Consultancy and Management Solutions LLP, conducted advisory visits and 1-day workshops in various clusters of Handicrafts in India as advised by EPCH.

In the workshops and advisory visits, various innovative packaging techniques were covered along with practical demonstration with packaging materials /videos for improvement in current packaging practices keeping in mind the branding and competitive pricing.

The cities where the advisory visits and workshops took places are: Jaipur, Jodhpur, Agra, Moradabad, Firozabad, Saharanpur, Mumbai, Kolkata and New Delhi

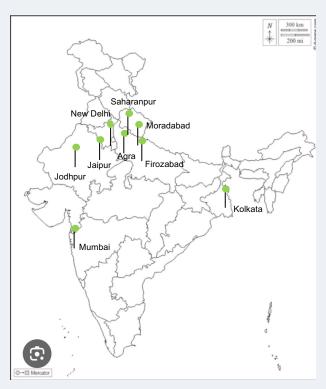


Fig: Cities where Advisory Visit and 1-day Workshop completed are in black

### **OBJECTIVE**

Packaging is an integral part of production and physical distribution of a product. All products need packaging to protect the product to reach to the customer in a safe and factory fresh condition. Furthermore, the role of packaging is to place the product in an aesthetic manner with a greater sales appeal to the importer for all types of Handicrafts produced by big industries as well as small entrepreneurs. Based on global trends, it is the right time to apply the skill and latest knowledge to upgrade the packaging of their products and do better business in India. This will enable them to improve their sales in Exports and E-commerce Business for the benefit of the respective sectors. The workshop with demonstration and latest packaging techniques are very much benefitted to the exporters to make the optimal packaging and make them more competitive.

The workshop/Training will also give an opportunity to young entrepreneurs to start their business for the manufacture of packaging materials and supply to the local product users and do the testing of the packaging materials from the common testing facilities centre.

The main objective will be to improve the overall latest knowledge on Packaging of the Handicrafts exporters which will result in significant contribution to the overall packaging of the handicrafts Exports of India.

### **METHODOLOGY**

The clusters were identified for the preliminary visits. The preliminary visits were made to the factories to see the existing packaging systems, product wise critical factors of the handicrafts and to discuss the current issues in the packaging for the exports.

Suggestions and suggestive alternative sustainable packaging solutions were given to resolve the packaging. Samples were collected for prototype packaging design and KLD making to provide solutions. With the observations during the visits, workshops on packaging for handicrafts exports were organised for all the stakeholders.

With this recent packaging techniques, latest packaging materials which can be used for the exports were shared among the exporters. All the informations are given with practical demonstration along with packaging materials/videos. Sustainable packaging materials and their uses were shown.

The prototype packaging along with Key Line Drawing were shown besides existing packaging. It also covered all the requirements of E commerce packaging. Ways to reduce the packaging cost is were also discussed.

The packaging process to get a better packaging appeal and much more optimal Packaging was the main objective. This was done keeping in mind the competitive pricing and with a focus on current E- Commerce market.

### STEP 1

Exploratory factory visits were made to the major handicraft clusters. Current packaging of Handicrafts were studied and the samples were collected. The challenges for the packaging were discussed and the improvement in the packaging were studied and observations were analysed.

### STEP 2

One day workshops were conducted for the demonstration cum technical lectures for the exporters after the cluster visit. The participants were exporters and leading industry leaders. The course materials and lectures were given by the expert. The cost comparison of the packaging materials and the list of Vendors were shared with the exporters. Various queries were answered at the end of the workshop. The above methodology will not only help the exporters to solve their packaging issues but also get the information on sustainable packaging solutions and packaging for the E-Commerce business.

### The List of Clusters Visited:

- 1. Firozabad
- 2. Agra
- 3. Saharanpur
- 4. Moradabad
- 5. Jodhpur
- 6. Jaipur
- 7. Mumbai
- 8. Kolkata
- 9. Delhi

The overall packaging changes will help the exporters to reduce the use of plastics based packaging making the environment friendly. The exports will be higher to make it "Teen Guna **Tees Tak"** target in the Handicrafts exports.

# **CLUSTER 1: FIROZABAD**

Firozabad is a city near Agra in the state of Uttar Pradesh in India. It is the centre of India's glassmaking industry and is known for the quality of the bangles and glassware produced here. Firozabad is the **largest** glass manufacturing centre India, in accounting for about 70% of the total glass production in the unorganised sector in India. It is estimated that over of the city's population is employed "directly or indirectly" in the



glass industry with bangle manufacturing alone employing about 100,000 people. Firozabad is the single largest producer of bangles in India accounting for 46% of India's total production. Other products include things like glass tableware, laboratory glassware, glass containers, automot ive glass, vases, chandeliers, and numerous decorative items.

### **FIROZABAD**

### **Products:**

- Glass articles including cups coffee mugs
- Decorative Glass pots, bowls
- Metal fitted Glass articles
- Glass along with Wood fitted articles
- Glass along with marble stone fitted articles
- Flowerpot, flower vase bigger size

Weight: 0.150Kg to 3.5Kg, max 5Kg., sizes 2.5 inches diameter to 6.5inches diameter and 3 inches height to 11.5 inches height

Critical issues: Breakage 5%, Heavier, Scratches, Fragile, Polish Surface, Dust, Sustainable packaging, Replacement of EPS, Cost reduction

Countries of importers: All developed countries including US, UK, Germany, Netherlands, France etc.

Current Packaging materials used: Brown Paper, 5 ply B fluted CFB board, Glue joint CFB Box, EPS Moulded, EPE Sheet, Buble film, CFB fitments, EPS Moulded fitments, EPS Sheets

### **Suggestions:**

- Packaging has to be done in the dust free area in glass door fitted room to avoid the dust in the products to be exported.
- Staple joints boxes should not be used.
- No cloth tape to be used. It will reduce cost.
- No cross taping to be done. Taping in "H"fashion is suggested.
- BOPP taping may be replaced with Paper PSA tape to give sustainable solutions.
- Number of plies can be reduced by changing the paper specifications of CFB Box. This can reduce to cost of Packaging.
- EPS Cushion materials can be replaced by the CFB Buffer fitments.
- Paper Honey comb wrapper can be used to give to replace the plastic based foam. This is suggested as an sustainable Packaging solution.
- Video demonstration given to show how to do packaging.
- TWT are shown and is suggested to follow before finalisation.

### Highlights of the Advisory Visit/ Workshop at Firozabad

Date of Advisory Visit: 31st July 2023

Date of Workshop : 12th September 2023

Products: Firozabad, UP is famous for Glass Handicrafts Manufacturing

The products are exported world-wide with a weight range of

0.5kg to 30kg.

The dimensions of the product have a diameter of 4 inch

to 18 inch

List of countries exported include: U.S.A, U.K., U.A.E, Germany, France, Australia etc







### Field Visit done at following places:

- **Transparent Overseas**
- **Glass Creations**
- **Gupta Glass Works**





# Items Produced as seen during the Advisory Visit to Firozabad Factories



**Drinking Glass** 



Martini Glass



**Decorative Glass** 



**Larger Size Decorative Glass** 



Flower Vase



**Decorative Glass Container** 

# Earlier Packaging Practices (Unit Packaging, Intermediate and Transport Packaging)







































# **Suggested Sustainable Packaging Solutions**

















# **Previous Packaging Design for Glass Item**



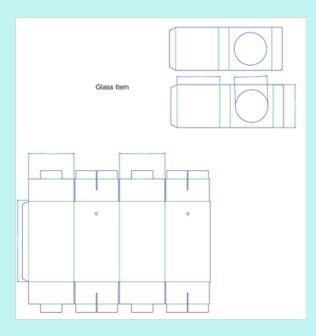


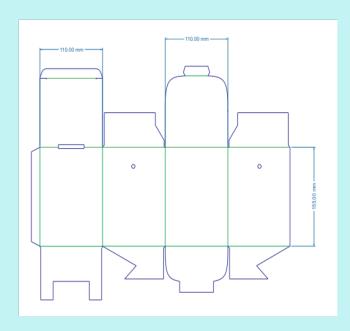


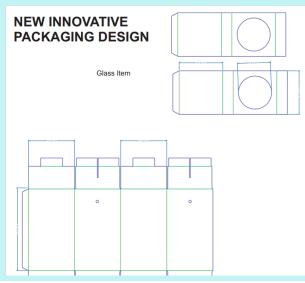




# Line Diagram of New Innovative Packaging for Glass Item







# Step by Step Sustainable Packaging Design for Glass Item

Step 1 Step 2 Step 3 Step 4 Step 5 Step 6 Step 7 Step 8



**PRINTED** 

# **PLAIN BOX**



### Workshop at Firozabad

As per the proposal, one-day workshop was organized on 12<sup>th</sup> September 2023 at Firozabad cluster on Packaging of Glass Articles produced in Firozabad.

During the workshops, all the member exporters including EPCH Board Members, industry leaders and packaging suppliers were present.

The main objective was to disseminate the information on latest Packaging techniques and Sustainable Packaging solutions to be used for Handicrafts produced by the exporters of Firozabad.

The products in Firozabad included cups coffee mugs, Decorative Glass pots, bowls, Metal fitted Glass articles.

The inputs received from the different exporters during the exploratory visits and different alternative packaging solution on cost reduction, issue-based solutions, benefits related to logistics and prototype packaging developed for selective items were provided to the exporters.

The participants in the workshop were provided with the following:

- Study material on Export oriented Packaging
- Basic functions of packaging
- Critical Factors for Glass Handicraft Articles produced in Firozabad
- Packaging solutions for resolving the critical factors
- List of packaging suppliers were provided
- Distribution factors including transport, handling, storage and logistics for exports
- Alternative Packaging materials and sustainable packaging solutions
- Cost reduction in packaging
- Prototype packaging design with keyline drawing to resolve the packaging issues
- Physical demonstration of the packaging materials
- Video show demonstration for different sustainable materials, application, package testing, TWT and applications
- Issue based packaging solutions
- Prototype was made by using 100% bio degradable packaging material (CFB board) by replacing thermocol/EPS. New design reduced the packaging cost by 25% - 30% of the existing cost
- It reduced the overall volume of packaging which will contribute to the freight cost reduction
- This packaging along with product was drop tested in front of the audience and shown no breakage/damage with newly designed packaging
- Question answer session among the participants/ exporters

Total 55 participants were present in the workshop and got the benefit out of it. The programme was appreciated by all the participants and they provided their valuable feedback as highly satisfactory.

The participants also requested for more such workshops to be organized in the future.

### **Firozabad Workshop Pictures**













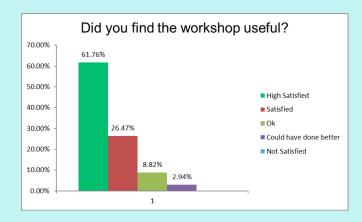
### फिरोजाबाद में 12 सितंबर 2023 को ईपीसीएच ने इनोवेटिव पैकेजिंग फॉर ग्लास हैंडीक्राफ्टस प्रोडक्ट कार्यशाला का किया आयोजन



### कार्यशाला में दी पैकेजिंग रणनीतियों की जानकारी

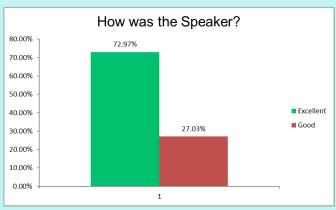


## **Firozabad Workshop Feedback**



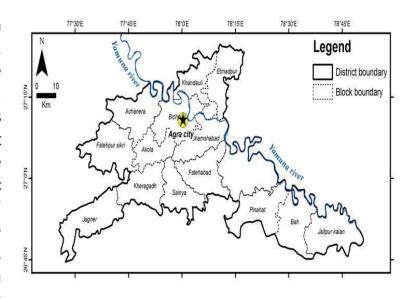






# **CLUSTER 2: AGRA**

Agra is a city on the banks of the Yamuna river in the Indian state of Uttar Pradesh. Agra is a city offering a discovery of the beautiful era. Agra has a rich history, reflected in its numerous monuments dotted in and around the city. The earliest for from the citation Agra comes mythological where the epic era, Mahabharata refer Agra as 'Agravana' meaning paradise in Sanskrit. 'Ptolemy', the famous second century A.D. geographer, was the first person who referred Agra with its modern name. The Modern Agra was



founded by Sikandar Lodi, ruler of Lodi dynasty in 16th century. It was when Shah Jahan descended the Mughal throne that Agra reached the zenith of architectural beauty.

Agra has developed into an industrial town, with a booming tourism industry, along with footwear, leather and other manufacturing. The Taj Mahal and the Agra Fort are UNESCO World Heritage Sites. The city features mild winters, hot and dry summers and a monsoon season, and is famous for its Mughlai cuisine. Agra is included on the Golden Triangle tourist circuit, along with Delhi and Jaipur; and the Uttar Pradesh Heritage Arc, a tourist circuit of Uttar Pradesh, along with Lucknow and Varanasi.

### **AGRA**

### **Products:**

- Wooden Coaster
- Marble Paper weight
- Marble plus plastic Soap Dispenser
- Marble Bowl set of 3
- Marble Table top
- Rectangular Tray
- Marble Chopping Board

Weight: 0.5Kg to 17.5Kg, max 30Kgs, sizes 4 inches to 18 inches.

Critical issues observed: Heavier, Scratches, Fragile, Polish Surface, Dust, breakage,

Replacement of EPS.

**Countries of importers:** All developed countries.

Current Packaging materials used: Brown Paper, 4ply cross fluted CFB board, Glue joint CFB Box, 25 ply die-cut buffer, Diecut CFB Box, EPE Tube, EPE Sheet, Butter paper, Rigid box, Buble film, PVC Box, PUF, Rubber bits, CFB fitments, 17ply Buffer, EPS Moulded fitments, EPS Sheets.

### **Suggestions Provided:**

- Packaging has to be done in the dust free area in glass door fitted room to avoid the dust in the products to be exported.
- Staple joints boxes should not be used.
- No cloth tape to be used. It will reduce cost.
- No cross taping to be done. Taping in "H"fashion is suggested.
- BOPP taping may be replaced with Paper PSA tape to give sustainable solutions.
- Number of plies can be reduced by changing the paper specifications of CFB Box. This can reduce to cost of Packaging.
- EPS Cushion materials can be replaced by the CFB Buffer fitments.
- Paper Honey comb wrapper can be used to give to replace the plastic based foam. This is suggested as an sustainable Packaging solution.
- Video demonstration given to show how to do packaging.
- TWT are shown and is suggested to follow before finalisation.

## Highlights of the Advisory Visit/ Workshop at Agra

Date of Advisory Visit: 1st August 2023 Date of Workshop : 9th September 2023

**Products:** Agra, UP is famous for Marble Stone Products.

Some trends observed there include: Smaller- gift items having more demand

0.5gm to 30kg weight range

4 inch to 18 inch diameter size are exported

List of countries exported include: U.S.A, U.K., U.A.E, Germany, France, Australia etc.





### Field Visit done at following places:

- Sharma International
- Stone men Crafts Pvt. Ltd
- Creative Crafts Pvt. Ltd





# Items Produced as seen during the Advisory Visit to Agra Factories



Marble Vase



Soap Dispenser



Marble Bowl



Marble Chopping Board



Marble Table



Marble Table Top



Marble Toys



Marble Tray

# Earlier Packaging Practices (Unit Packaging, Intermediate and Transport **Packaging**



































# **Suggested Sustainable Packaging Solutions**



























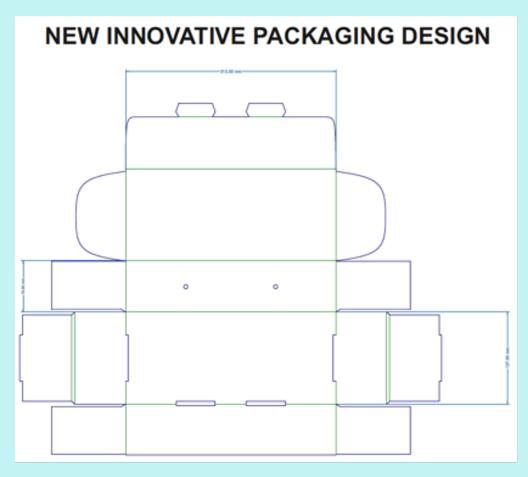
# **Previous Packaging Design for Marble Bowls**

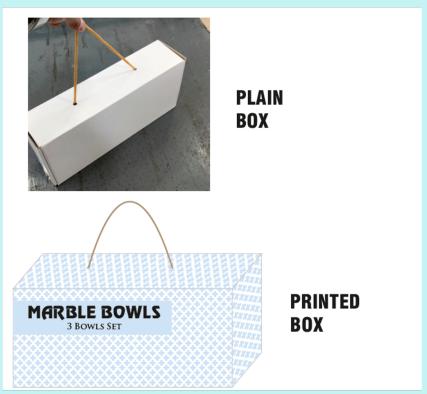
# **OLD PACKAGING DESIGN**





# **KLD for Sustainable Packaging Design of Marble Bowls**





# **Innovative Sustainable Packaging Design of Marble Bowls**







### Workshop at Agra

As per the EPCH schedule, one-day workshop was organized on 9th September 2023 at Agra cluster on Packaging of Marble Articles produced in Agra.

During the workshops, all the member exporters including EPCH Board Members, industry leaders and packaging suppliers were present.

Some articles produced there include: Marble Table Top, Marble Tray, Marble Soap Dispenser, Marble (Rectangular Tray, Chopping Board) and Gift Items.

The workshop was conducted with the aim of proving advanced Packaging knowledge to the exporters along with know-how for sustainably driven packaging which would help the exporters to compete in the international market.

The Workshop provided the following to the participants:

- Study material on Export oriented Packaging
- Basic principles of packaging
- Different Critical Factors for different Marble based Handicraft Articles produced in Agra
- Packaging solutions for resolving the critical factors
- List of packaging suppliers were provided
- Distribution factors including transport, handling, storage and logistics for exports
- Packaging solutions to stop breakage issues in Marble during transportation
- Alternative Packaging design with a focus on sustainability
- Resolution of current issues faced by exporters in packaging
- Process oriented Cost reduction in packaging by reducing number of plys in CFB box
- Prototype packaging design with keyline drawing to resolve the packaging issues
- Video show demonstration for different sustainable materials, application, package testing, TWT and applications
- Prototype was made by using 100% bio degradable packaging material(CFB board) by replacing thermocol/EPS. New design reduced the packaging cost by 25% - 30% of the existing cost
- It reduced the overall volume of packaging which will contribute to the freight cost reduction
- Physical demonstration of honey-comb paper based cushioning for the packaging of gift articles
- This packaging along with product was drop tested in front of the audience and shown no breakage/damage with newly designed packaging
- Suggestions were given for using corrugated board buffer fitments in place of EPS/EPE to reduce the volume of the packaging and overall cost reduction
- Question answer session among the participants/ exporters

Total 50 participants were present in the workshop and got the benefit out of it. The programme was appreciated by all the participants and they provided their valuable feedback as highly satisfactory.

The participants also requested for more such workshops to be organized in the future.

## **Agra Workshop Pictures**





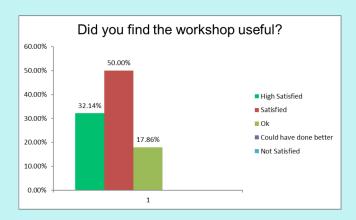






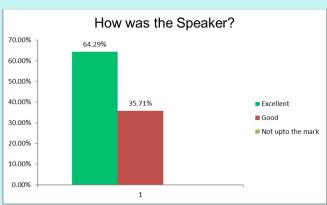


# **Agra Workshop Feedback**





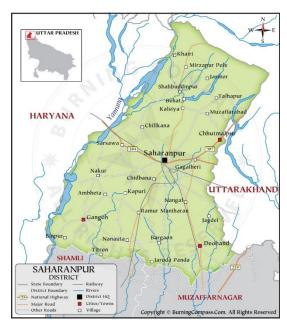




# **CLUSTER 3: SAHARANPUR**

Saharanpur is situated between the Ganges and the Yamuna, the holy rivers of India. One of the major district of the state of Uttar Pradesh, in northern India, the history of Saharanpur dates back from 2000 B.C. It was part of the Indus Valley civilization later to be ruled by the Aryan Kings. The Mughals took over in the 1300's and it became the administrative hub and summer resort of the Mughal Empire. In the year 1803 the British took over from the Mughals later to be ousted after the Mutiny of 1857.

Saharanpur, now, has become the primary road and railway junction of Uttar Pradesh. Apart from being the major agricultural market, it also features in the world



map as one of the foremost manufacturer of wood products and handicrafts. The city is more famous are the wooden handicrafts which are a testimony to the rich culture and heritage that the city possesses. The handicrafts also carry the designs and intricacies of its rich heritage which were so prevalent during the Mughal rule. The wooden handicrafts that we find in Saharanpur include furniture, decorative items and wooden items. These items are exported all over the world.

### SAHARANPUR

#### **Products:**

- Wall Decor
- Table Decor
- Kitchen Ware
- Furniture
- Christmas Decor
- Pet Feeder

Weight: 1 Kg to 60 Kg, sizes 4 inches to 72 inches length

Critical issues observed: heavier, scratches, polish surface, dust, moisture, insect attack, fungus

**Countries of importers:** All developed countries.

Current Packaging materials used: Brown Paper, 5 ply, 7 ply, 9 ply CFB, Glue Joint Box, Die Cut CFB Box, EPE Tube (1/2 inch) 0.8mm EPE, EPE sheet (1/2 inch), Butter Paper, CFB Box (Glue Joint), Rigid Box, Bubble film, PVC Box, Poly Acetate Box, LDPE Bubble film

#### **Suggestions Provided:**

- Number of plys in corrugated board could be reduced from 7-ply to 5-ply by changing the paper specification which will result in cost reduction
- Paper based corner to be used instead of EPE corner
- CFB based buffer is suggested to be used in place of EPS block
- H- type BOPP tape closing is suggested
- No cross taping
- Paper based PSA taping is suggested instead of BOPP taping as a sustainable solution



- Marking on the box (this side up)
- Paper Honey comb wrapper is suggested as Sustainable solution as a fitment
- Silica Gel to be used in sufficient quantity to absorb moisture
- Mositure content of corrugated box should be within 10% to keep the product dry
- No silicate based adhesive should be used for CFB box making. This will reduce the strength of the box in highly humid conditions
- Starch based adhesive should be used

# Highlights of the Advisory Visit/ Workshop at Saharanpur

Date of Advisory Visit: 1<sup>st</sup> November 2023 Date of Workshop: 29<sup>th</sup> November 2023

**Products:** Saharanpur, UP is famous for Woodcrafts.

Some trends observed there include : Smaller- gift items having more demand

1kg to 60kg weight range

4 inch to 18 inch length size are exported

List of countries exported include: U.S.A, U.K., U.A.E, Germany, France,

Australia etc.

### Field Visit done at following places:

- M/s Shining Handicrafts
- M/s Leo Arts India
- M/s Marghoob Brothers
- M/s Sant Exports
- M/s Miglani Exports











# Items Produced as seen during the Advisory Visit to Saharanpur Factories







**Table Decor** 



**Kitchen Ware** 



**Furniture** 



**Christmas Decor** 



**Pet Feeder** 

# Earlier Packaging Practices (Unit Packaging, Intermediate and Transport Packaging)

































# **Suggested Sustainable Packaging Solutions**



















# **Previous Packaging Design for Easter Calendar**

# Old Packaging design with plastic foam





# **New Innovative Packaging for Easter Calendar**



### Workshop at Saharanpur

EPCH organised a Workshop on "Innovative Packaging for WoodCraft Products" at Saharanpur Uttar Pradesh on 29th November, 2023.

During the workshops, all the member exporters including EPCH Board Members, industry leaders and packaging suppliers were present.

The presentation and demonstration were made on the basis of the inputs received during exploratory visits to the industries before the workshops.

The products include: wooden chopping board, platter, coaster, trays, spoons, votives, sideboard, cabinets.

The following was provided during the workshop:

- Study material on Export oriented Packaging
- The focus was to give the ideas on the use of sustainable packaging materials
- innovative design with those materials
- List of packaging suppliers were provided
- to reduce the damage of the products through design and TWT
- The cost comparison with the materials used are also shown
- Over 60 exporters participated and also asked questions during Q&A session to solve their packaging Doubts.
- Various fumigation and treatment of timbers were discussed and suggested for use to produce the handicrafts and protect them from insect attacks
- Suggestion was given on preventing collapse of box containing woodcrafts by using starch based adhesive for CFB formation along with using silica gel in the box
- The major focus was on to find out the alternative sustainable packaging materials, cost reduction and Testing of packages for the exports
- The demonstration of packaging samples, Video shows and prototype samples with Key line diagram were shown
- Distribution factors including transport, handling, storage and logistics for exports
- Cost and volume reduction was done on the Prototype
- Drop test was performed and demonstrated to the audience
- All the leading exporters participated and have discussed in depth on packaging. The initiative taken by EPCH was very much appreciated.

Total 60 exporters took part in this workshop.

### **Saharanpur Workshop Pictures**







#### लकड़ी के उत्पादों पर अभिनव 'पैकेजिंग' कार्यशाला आयोजित

# शालाएं मील का पत्थर: मौ. औसाफ



शाह टाइम्स ब्यूरो सहारनपुर। निर्यातक मौ. औसाफ गुड्डू ने कहा कि कार्यशाला हस्तशिल्पियों के लिए मील का पत्थर होती है।

औसाफ गुड्डू ने यह बात

ईपीसीएच द्वारा लकडी के उत्पादों के लिए अभिनव पैकेजिंग पर आयोजित कार्यशाला में कही। उन्होने कहा कि यह कार्यशाला नवीन दुष्टिकोणों का पता लगायेंगी जो हस्तशिल्प उत्पादों की सुरक्षा और स्थिरता सुनिश्चित

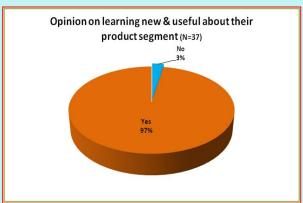
करते हुए उनकी दृश्य अपील को बढाती है।

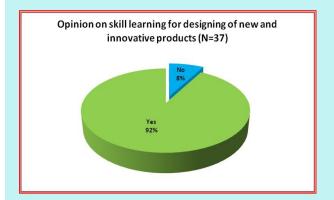
कार्यशाला को लघु उद्योग भारती जिलाध्यक्ष अनुपम गुप्ता, निर्यातक सिंह, प्रविन्द्र रविन्द्र मिगलानी, सहारनपुर वुड कार्विंग मैन्युफेक्चरिंग एसोसिएशन के अध्यक्ष इरफानुल हक, रईस अहमद, पैकेजिंग विशेषज्ञ राजेश ईपीसीएच सिंह, कार्यकारी निदेशक आरके शर्मा, अध्यक्ष दिलीप बैद, डा. माधव चक्रवर्ती ने भी

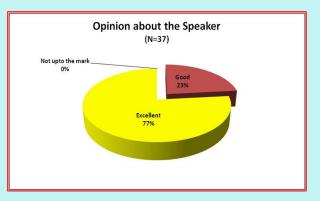
सम्बोधित किया। कार्यशाला में वक्ताओं ने निर्यातकों को पूछे गये प्रश्नों का समाधान प्रदान किया और सदस्य निर्यातकों के सकारात्मक बातचीत कर समापन किया।

# **Saharanpur Workshop Feedback**









# **CLUSTER 4: MORADABAD**

Moradabad was founded in 1625 and named after Murad, a son of the Mughal Emperor Shahjahan. The ruins of a fort built in 1625 lie in the northern part of the city. It is believed that Brassware industry traces its roots to Moradabad and has now spread to the rest of the country.

The Brassware industry in Moradabad saw its boom during the early 19th century and the British carried the art of making Brassware to foreign markets. Artisans from Banaras, Lucknow, Agra and Jalesar formed the current cluster of Brassware industry in Moradabad. In 1980,



various other metal wares like brass, EPNS, iron, aluminum, etc., were introduced. New technologies like electroplating, lacquering, powder coating also found application in the industry.

In Moradabad, there are several hundred units engaged in the manufacture and export of brass products. Majorly all retail conglomerates like Walmart, IKEA, Target, etc. purchase brass products from Moradabad. Average annual export of Brassware and handicraft items from Moradabad to rest of the world is to the tune of Rs. 3,000 crore, which constitutes 40% of total exports from India under this category. Moradabad city is a designated Special Economic Zone (SEZ) of the Government of India.

The city is surrounded by industrial hubs like Rudrapur, Haridwar, Roorkee, Meerut, Kashipur, Noida and Delhi, providing ample opportunities for graduating students to get trained and absorbed both in Indian and multinational companies.

#### Moradabad

#### **Products:**

Combination of Marble, Glass, Metal, Wood

- Furniture
- Lamp Lighting
- Kitchen ware and Utensils
- Wall Mirror
- Table Top
- Nautical Decorative Items

Weight: 1 Kg to 60 Kg, sizes 4 inches to 72 inches length

Critical issues observed: heavier, scratches, polish surface, dust, moisture, rusting, discolouring, volume (costly packaging requiring cost reduction)

**Countries of importers:** All developed countries.

Current Packaging materials used: Brown Paper, 5 ply, 7 ply, 9 ply CFB, Glue Joint Box, Die Cut CFB Box, EPE Tube (1/2 inch) 0.8mm EPE, EPE sheet (1/2 inch) ,Butter Paper, CFB Box (Glue Joint), Rigid Box, Bubble film, LDPE Bubble film, EPE ribs, EPS sheet

#### **Suggestions Provided:**

- Paper based sustainable packaging used in place of plastic based EPE foam
- Volume reduction by reducing the space
- Cost reduction by reducing the number of plies of CFB box
- Use of EPE foam is completely removed to make 100% environmental friendly packaging
- Paper based PSA tape instead of BOPP tape
- No cross-taping
- Honey- Comb paper wrapper
- Tuck in carton and bottom locked design is made to ensure product does not come out easily or fall during handling
- Aesthetically looking better design compared to the earlier ones
- Easy to carry home pack
- Proper closing with locking system
- Cushioning fitment can be changed as per need
- TWT testing

### Highlights of the Advisory Visit/ Workshop at Moradabad

Date of Advisory Visit: 6<sup>th</sup> November 2023

Date of Workshop: 28<sup>th</sup> December 2023

**Products:** Moradabad, UP is famous for Metal Crafts.

Some trends observed there include: Smaller- gift items having more demand

1kg to 60kg weight range

4 inch to 72 inch length size are exported

List of countries exported include: U.S.A, U.K., U.A.E, Germany, France,

Australia etc.

### Field Visit done at following places:

- M/s Nodi Exports
- M/s Shree Sai de Art
- M/s Vallabh Metal Industries
- M/s Deewan and Sons











### Items Produced as seen during the Advisory Visit to Moradabad Factories



**Furniture** 



**Lamp Lighting** 



**Kitchen Ware and Utensils** 



**Nautical Decorative Items** 



**Composite of Metal, Marble, Glass** 

# Earlier Packaging Practices (Unit Packaging, Intermediate and Transport Packaging)















































# **New Sustainable Packaging Design**





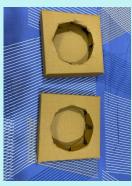






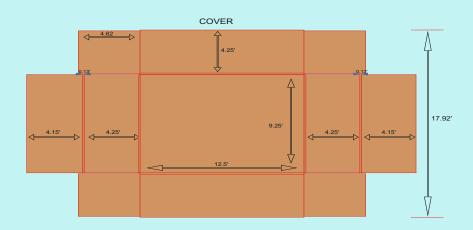


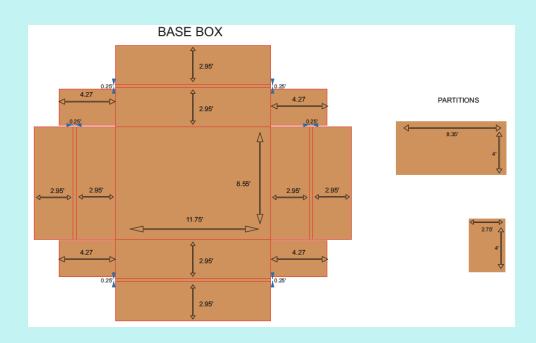






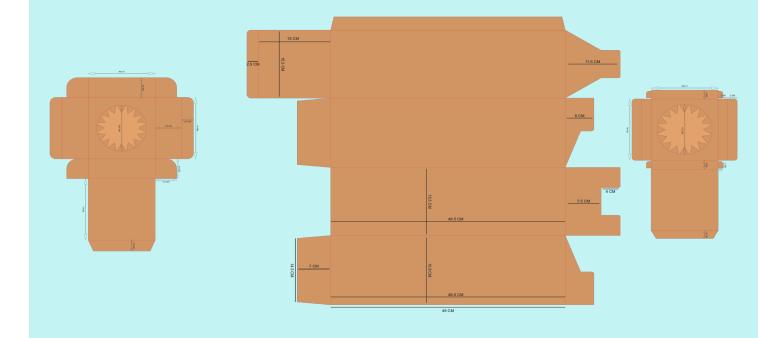
# Design with KLD for Glass Jar



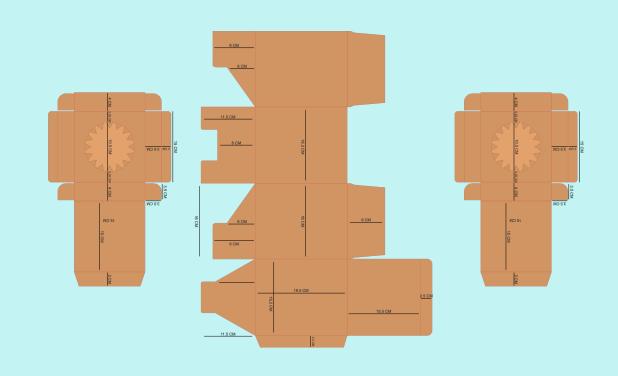




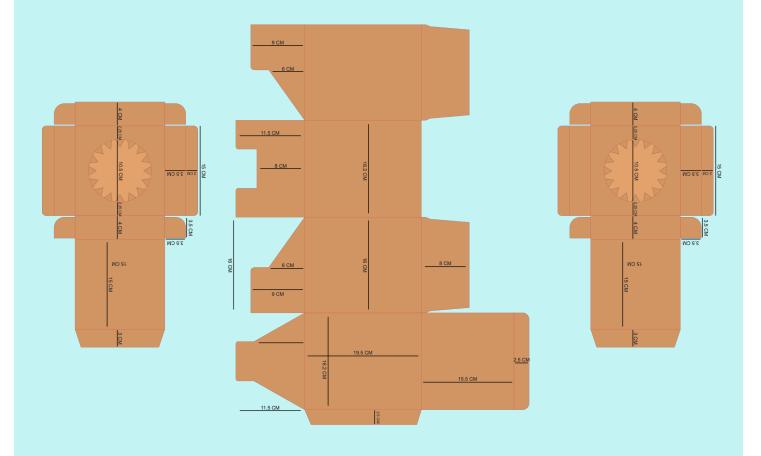
# **Design with KLD for Candle Stand**



# **Design with KLD for Candle Top Glass**



# **Design with KLD for Candle Top Glass**



#### Moradabad

EPCH organised a Workshop on "Innovative Packaging for Metalware Products" at Moradabad Uttar Pradesh on 28th December, 2023.

During the workshop, all the member exporters including EPCH Board Members, industry leaders and packaging suppliers were present.

EPCH organised one day workshop at Moradabad on Packaging of metal products for the exporters. The presentation and demonstration were made on the basis of the inputs received during exploratory visits to the industries before the workshops. The main products were metal furniture, decorative mirrors, table tops, lamps, Marble stone, bathroom accessories, wall mirror

The following was provided in the workshops:

- Study material on Export oriented Packaging
- The focus was to give the ideas on the use of sustainable packaging materials
- Products with metal, wood and glass had lot of critical issues especially breakage had been resolved by creating prototype packaging using CFB fitments inside instead of EPS foam, bubble film and moulded EPS. This was demonstrated with drop test
- Critical factors namely heavier, scratches, polish surface, dust, moisture, rusting, discolouring, breakage of marble, volume were discussed
- Suggestion was given reduce the damage of the products through alternate packaging design
- The cost comparison with the materials used are also shown
- List of packaging suppliers were provided
- The demonstration of packaging samples, Video shows and prototype samples with Key line diagram were shown
- Distribution factors including transport, handling, storage and logistics for exports
- Cost and volume reduction was done on the Prototype
- All the leading exporters participated and have discussed in depth on packaging. The initiative taken by EPCH was very much appreciated.

The presentation were made on Packaging with Prototype design and KLD, samples were shown along with the video shows.

Various questions pertaining Packaging techniques, Packaging Development and Marketing were asked by the participants. All the questions asked were answered with solutions to the exporters and concluded with positive interaction with members exporters. This workshop was attended by participants more than 100 including the Exporters, members of Buyers agents association, members of corrugated box manufacturers association from UP, Moradabad and Noida.

### **Moradabad Workshop Pictures**

# 2030 तक होगा तीन गुना निर्यात : बैद

ईपीसीएच की कार्यशाला में पैकेजिंग की चुनौतियों पर हुई चर्चा

अमर उजाला ब्यरो

मुरादाबाद। इस्तशिल्प निर्यात संबर्धन परिषद (ईपीसीएन)ने मेटलवेपर उत्पादों की पैकेजिंग से जुड़ी चुनीतियां, सुर्यक्षत परिवहन और बाजार में आकर्मकता पर बल दिया गया। बताया कि उत्पाद ग्राहकों के मन में स्थायी प्रभाव छोड़ने वाला और अंतराष्ट्रीय मानकों के लिए अनक्ष सोना जाहिए।

असुन्य होना श्राहिए। असुन्य होना श्राहिए।
श्रीसीएय ने 'मेटलवेयर उत्पादों
को इनोवेंद्रिय सैकेनियां 'सर एक कार्यशाला का आयोजन दिल्ली रोड स्थित एक होटल में किया। इस दौरान मेटलवेशयर उत्पादों की फैकेनिया से जुड़ी अनुठी चुनौतियों का सम्प्रापन, उनका सुर्राशित पंपादकर सुनिश्चित्व करना और स्वाता से अपील के विश्वय पर चर्चा के अध्यक्ष दिलागि बंद ने कहा कि परिषद ने 2030 कक तीन गुना नियाँत हासिल

इस कार्यशाला का उद्देश्य हस्तशिल्प उद्योग के एक विशिष्ट हिस्से, मेटल हस्तशिल्प के लिए

ईपीसीएच की कार्यशाला में बोलते माधव चक्रवती । संव



ईपीसीएच की कार्यशाला में मौजद निर्यातक । संवाद

पैकेजिंग से संबंधित चुनौतियों और अवसरों का समाधान करना है। इसमें पैकेजिंग के लिए नवीन तरीकों का पता लगेगा। संस्था के कार्यकारी

र मुरादाबाद में मेटलवेयर शिल्प । कीशल की एक समृद्ध परंपरा है। ं उन्होंने शिल्प कीशल और प्रभावी रे पैकेजिंग के बीच अंतर बताने की कोशिश की। बताया कि साल पैकेजिंग का मतलब खरीदारों के मन में एक स्थायी प्रभाव डालना है : महासचिव

स्थाना जागन जाराता है नास्तिक्व अवशेश अध्याल ने कहा इस पेकीम का मतलब सिम्म उत्पादों की सुरक्ष करना नहीं है बल्कि यह ब्यादारों के मन में एक स्थापी प्रभाव डालना है। इस मतलाल में सिनी जानकारी मेटल इततीक्ष्यों के लिए पेकीकी मानकों को ऊंचा करेगी। बाहंग एनेट एसोस्सएतन की महास्तिब्ब तान्या भारिया ने कहा कि दुनिया पर में ब्यादार टिकाऊ जिस पर्यावण अनुवाद पेकीमां की तालाम में हैं। उत्पादों को सोसिंग करते समय ब्यादार अंतराष्ट्रीय मानकों पर जोर देते हैं।

वज्ञ सं पकार्यम म सारावानापुरक मांच विचार को जरूरत है। इंपीमीएच के फैकेंगिग स्माहकार और विशेषज्ञ डॉ. माध्य चक्रवर्ती ने प्रतिभागियों को हस्सीएनच धातु उत्पादों के लिए सबसे प्रभावों फैकेंगि रह्मानों और व्यवसायियों को उनकी पैकेंगिंग को पर्यादाण-अनुकूल बनाने के बारे में बताया। उनहीं एक माहीन पहले को गई खोज और बलस्टर आधारित

निर्यातकों से प्राप्त फीडबैक के आधार पर विकसित कुछ सांकेतिक पैकेजिंग प्रोटोटाइए भी साझा किया। ये प्रोटोटाइए मेंने हैंडीक्रापट उत्पादों की विशिष्ट जरूरतों को पूरा करने के लिए डिजाइन किए गए हैं।

करत के एएए इडावटन किए पेए हैं। प्रोटोटाइप में पर्यावरण के अनुकूल फैकिंग सामग्री, कलायक फैकिंग इडावटन और इनोबंदिन प्रोडेवर प्रेजेंट्यन और शामित्व थे। इस दौरानी प्रतिभागियों ने फेकिंग वक्तनेक, फैकिंग किकास और विपणन से संबंधित प्रश्न पुछे। इस दौरान ईंपोसीएच सोडोग हमेंन जुनेजा, विशाव अग्रवाल, उपनिदेशक नवीन गैड़ सहित 100 से अधिक निर्यावक मीजुद थे। मुरादाबाद, अमृत विचारः हस्तरिशल्प निर्यात संवर्धन परिषद् (ईपीसीएच) ने शनिवार को आगरा में हस्तरिशल्प स्टोन उत्पादों की उन्नत पैकेजिंग पर कार्यशाला आयोजित की। इसका उद्देश्य आधुनिक पैकेजिंग रणनीति की जानकारी देकर उत्पादों को बेहतर बनाने के लिए प्रेरित किया गया। पैकेजिंग सलाहकार और विशेषज्ञ डाँ. माध्य चक्रवर्ती ने इसके हर पहल के बारे में बताया।

हर पहलू के बारे में बताया। इंपीसीएच के कार्यकारी निदेशक आरके वर्मा ने कहा कि कार्यशाला का उद्देश्य स्टोन हस्तशिल्प उत्पादों के बाजार को बड़ा आयाम देना है। आकर्षक लगने वाली पैकेजिंग के उपायों पर चर्चा कर दुनिया में उपभोक्ता पर्यावरण के अनुकूल विकल्पों के प्रति जागरूक करने की जानकारी मिली। हस्तशिल्प निर्यात के अध्यक्ष रजत अस्थाना ने कहा कि अध्यक्ष रजत अस्थान के कहा कि अध्यक्ष रजत अस्थान के कहा कि स्टोन क्षेत्र में नियांतकों को पैकेजिंग समाधान का विकल्प चुनने में सशक्त बनाएगी। जिससे प्रतिस्पर्ध बढ़ेगी और पर्यावरण पर असर भी कम पड़ेगा। इस मौके पर अतिरिक्त कार्यकारी निदेशक राजेश रावत के साथ आगरा के 50 से अधिक निर्यातक उपस्थित थे।







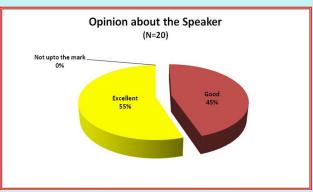


# **Moradabad Workshop Feedback**









# **CLUSTER 5: JODHPUR**

Jodhpur, a land of Chivalry, tourism and heritage lately emerged as a big center of artistic furniture and ethnic / traditional handicrafts. Curiously enough Jodhpur, quite a serene town remotely placed on the map of India is serving almost all countries of the world with its broad spectrum creative products of artistic wooden furniture, life-style accessories, exquisite Indian crafts, decoratives, giftwares, metalware, woodwares etc.



The innovativeness, the undiscovered trends, the violent departures from the established precedents by the

manufactures / exporters of Jodhpur have helped them create something uncommon, something unusual and something radically new to attract the buyers world over. The handicraft export industry of Jodhpur has virtually become the power house to sustain the economy of the State in general and the Region in particular.

The Handicraft Sector is economically important to high potential for export thereby earning valuable forex for the nation reckoning to about Rs. 1500 crores a year. Handicraft Industry of Jodhpur is promoting Cottage Sector deep in the rural areas which keep on reeling under year-to-year drought conditions of the Region. Again the industry is singled out by being eco-friendly, no use of big machinery or much of power, no requirement of imported substance or technology in the manufacturing process and even not much capital is attracted by the manufacturing units. Yet the industry generates employment not less than three lac people, mostly belonging to weaker section of the society.

### **Jodhpur**

#### **Products:**

- Wooden Furniture
- Side board
- Display Cabinet
- TV Unit
- Bed side
- **Door Chest**
- Coffee Table, Dining Table, Chair
- **Bar Stool**
- Marble Table
- Candle Holder
- Picture and Mirror Frame
- Bowls

Weight: 10 Kg to 150/200 Kg, sizes 2 ft to 8 ft

Critical issues observed: Die Size for 6ft is required for box making for furniture packaging, paper adhesive tape opening at high temperature, sustainable packaging solutions required, Glass breaking, marble breakage 10%, Scratches, dust, moisture

**Countries of importers:** All developed countries.

Current Packaging materials used: LDP film, EPS sheet, bubble film, CFB corner, Angle board, EPE foam, bubble film, 9-ply corrugated box, 5-ply CFB board

### **Suggestions Provided:**

- PSA tape of high temperature resistance to be used
- No cross-taping (cost reduction)
- No cloth taping at the corner (cost reduction)
- Plastic U-foam of EPE is suggested to be applied at edges of Marble/Glass Top
- Plastic U-foam of EPE is suggested to be applied at edges of Furniture
- Silica Gel to be used to absorb moisture
- No silicate based adhesive to be used for CFB box (Starch- based adhesive to be used)
- Paper- based angle board to be used at corners
- 19-ply CFB die-cut to be used in place of EPE foam
- Marking on the box (this side up) to be used
- Fragile symbol to be used for Marble Packaging

### Highlights of the Advisory Visit/ Workshop at Jodhpur

Date of Advisory Visit: 12th and 13th January 2024

: 6<sup>th</sup> March 2024 Date of Workshop

**Products:** Jodhpur, Rajasthan is famous for Wooden Furniture.

Some trends observed there include: 10kg to 150/200kg weight range

Dimension 2ft to 8ft

List of countries exported include Europe, Australia, USA, Middle East

### Field Visit done at following places:

- M/s Bhandari Exports
- M/s Bansal Art Exports
- M/s Bothra International
- M/s Neelkanth Arts and Crafts
- M/s Thar Art Exports
- M/s KB Arts and Crafts













### Items Produced as seen during the Advisory Visit to Jodhpur Factories



**Wooden Furniture and** Handicrafts made of Iron



**Sideboard** 



**Wooden Table and Chair** 



**Display Cabinet** 



**Marble and Glass Tops** 

# Earlier Packaging Practices (Unit Packaging, Intermediate and Transport Packaging)













































# **New Sustainable Packaging Design**



















### **Jodhpur**

One day workshop on Innovative Packaging for Wooden Handicrafts was conducted at Jodhpur Rajasthan on(6th March 2024) by EPCH.

During the workshop, all the member exporters including EPCH Board Members, industry leaders and packaging suppliers were present.

Total 80 participants from the Exporters and the dignitaries were present. The following things were provided during the workshop:

- Study material on Export oriented Packaging
- Functionalities of packaging for Exports
- List of packaging suppliers were provided
- Critical Factors identified for the packaging of Furniture's and wooden Handicrafts and How to overcome those factors with Packaging.
- Major Distribution factors including storage and Handling for the exports and the requirements of Packaging for that.
- List of Packaging materials used in the Furniture Packaging and technique to reduce the packaging cost by using design change and changing the packaging materials.
- List of Sustainable packaging materials and display of various packaging materials and innovative Sustainable packaging materials.
- TWT tests and quality control of Packaging materials and Packages for the exports.
- How to improve the packaging of cabinets, Almiras, Tables, Paper Mashe products by using various fitments and Cushioning materials. The use of sustainable cushioning Materals.
- Cost Reduction process and value engineering on alternative designs.
- Sample show on Sofa Packaging and demonstration on the fitments by reducing the issues and cost of Packaging.
- Issue based packaging discussion and question answering.
- Video demonstration on various packaging process and Testings.

The programme was appreciated by all the participants and they provided their valuable feedback as highly satisfactory.

The participants also requested for more such workshops to be organized in the future.

### **Jodhpur Workshop Pictures**











### निर्यातकों के लिए इनोवेटिव पैकेजिंग महत्वपूर्ण उपकरणः बोथरा

नवज्योति/जोधपुर।हस्तशिल्प निर्यात संवर्धन परिषद की ओर से बुधवार को लकड़ी के हस्तशिल्प के लिए अभिनव पैकेजिंग विषय पर कार्यशाला

बोरानाडा स्थित ट्रेड सेंटर में आयोजित की गई। कार्यशाला का उद्घाटन हंसराज बाहेती सदस्य सीओ और क्षेत्रीय संयोजक उत्तर पश्चिम क्षेत्र ईपीसीएच जोधपुर

के प्रमुखं निर्यातक राधेश्याम जोधपुर हस्तशिल्प निर्यातक महासंघ जेएचईफ के सरंक्षक निर्मल भंडारी एवं अध्यक्ष नरेश बोधरा, एक्सपोर्ट प्रमोशन कौसिल फॉर हैंडीक्राफ्ट्स के

एनडब्लूआर मेंटरशिप ग्रुप के सदस्य राजेश गुप्ता एवं डॉ. माधब चक्रवर्ती आदि ने किया।

निर्मल भंडारी ने कहा कि यह कार्यशाला पैकेजिंग के लिए नवीन दृष्टिकोणों का पता लगाएगी जो हस्तशिल्प उत्पादों की सुरक्षा और स्थिरता सुनिश्चित करते हुए उनकी दृश्य अपील को बढ़ाती है। नरेश बोथरा ने कहा कि लकड़ी

उत्पाद के नियांतकों के लिए इनोवेटिव पैकेजिंग एक महत्वपूर्ण उपकरण है। डॉ. माध्य चक्रवर्ती ने लकड़ी के हस्तिशल्प उत्पादों के लिए सव से प्रभावी पैकेजिंग रुझानों के बारे में बताया।



हस्तशिल्प निर्यात संवर्धन परिषद के कार्यकारी निदेशक आरके वर्मा ने बताया कि ईपीसीएच ानदशक आरके वमा न बताया कि इपासाएय दुनिया भर के विभिन्न देशों में भारतीय हस्तरीशल नियति को बढ़ावा देशों के उच्च गुणवत्ता वाले हस्तरिशल्य उत्पादों और सेवाओं के एक विश्वसनीय आपूर्तिकर्ता के रूप में विदेशों में पहचान बनी हैं। एक्सपोर्टर्स के लिए ईपीसीएच की ओर से कार्यशाला

# लकड़ी हैंडीक्राफ्ट की पैकेजिंग

पत्रिका @ जोधपुर, हस्तशिल्प निर्यात संवर्धन परिपद की ओर से लकड़ी के हस्तशिल्प के लिए अभिनव पैकेडिंग पर एक कार्यशाला बोरिया चिर्च हुई। कार्यशाला को उद्देश्य प्रतिभाष्टियों को उत्की उत्पाद की स्थिरता, पोटींबिलिटी और उपमोक्ता आकर्षण में मुख्य के लिए नवीनतम पैकेडिंग तकनीक की जानकारी क्या

हसराज बाहती सदस्य सीजाए और क्षेत्रीय संयोजक उत्तर परिचम क्षेत्र ईपीसीएच, प्रमुख निर्यातक राधेश्याम रंगा, जीप्याईएफ के सरसक निर्मात पंडारी व अध्यक्ष नरेण बोध्या, एक्सपार्ट प्रमोशन कींसिल फॉर हैंडीकाप्ट्स के मेटररीण पुर के सदस्य राजेश गृत्वा एवं पैकेजिंग सलाहकार डॉ. माध्य



लकड़ी के हस्तरिश्य में अमिनव पैकेजिंग सक्रवर्ती मौजूद रहे। बाहेती ने कहा कि 2030 तक तीन गुना निर्वात हासित्त करने के प्रयास में इंग्रीसीएड के चेरपरिम दिशीप बेंद के नेतृत्व में परिपद ने डिजाइन, पैकेजिंग और उत्पादकता पर विभिन्न हैंड होस्डिंग कार्यक्रम शुरूक किए हैं। एक्सपोर्टर रंगा ने बताया कि ये वस्तृप्र विभिन्न प्रकार की लक्कीड़ियों से बनाई जाती है और अक्सर जाटित रूप से नक्कारांगी की जाती है। कार्याशाला ने शिटपकीग्राल और प्रभावी पैकेजिंग के बींच अंतर को पाटने का प्रयास

मंगकार्यवालामं में गुद्ध वरिष्ट मितंताक। किया गया। जोएवईएफ के भावती ने कहा कि यह कार्यशाला पेकेत्रिम के लिए नवीन पूरिटकीणो का पता लगाएगी। कार्यक्रम का संखालन गेपीसीएक के जोभपुर प्रतिनिध-गोपाल शर्मा ने किया। हस्तिशेख्य नियति संबंधनेप परिषद के कार्यकारी ने मारतीय हस्तिशिख्य प्रणाला वाले हस्तिशिख्य उत्पादी और सेवाओं के लिए कार्य करता है।

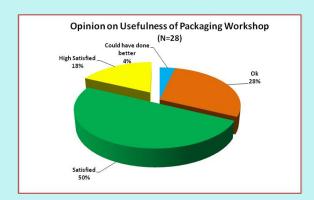
### ७ साल में हैंडीक्राफ्ट का एक्सपोर्ट ३ गुणा का लक्ष्यः बाहेती ईपीसीएच की सेमीनार में एक्सपर्ट ने दिए टिप्स बिजनेस संवाददाता | जोधपुर

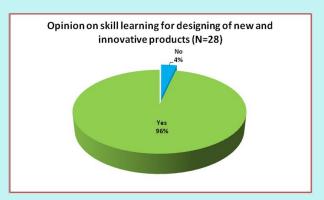
ईपीसीएच के सीईओ सदस्य व उत्तर पश्चिम क्षेत्र के क्षेत्रीय संयोजक उत्पादकता पर विभिन्न हैंड होल्डिंग पैकेजिंग के लिए नवीन दृष्टिकोणों हंसराज बाहेती ने कहा कि ईपीसीएच कार्यक्रम शुरू किए हैं। जोधपुर में का पता लगाएगी। जोधपुर हैंडीक्राफ्ट का प्रयास है कि इस 2030 तक इस कार्यशाला का उद्देश्य हस्तशिल्प एक्सपोर्टर्स फेडरेशन के अध्यक्ष नरेश

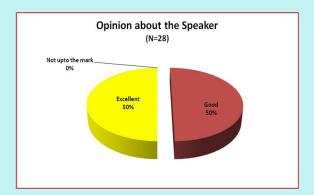
जोधपुर के निर्यात को तीन गुणा उद्योग के एक विशिष्ट खंड, लकड़ी बोधग ने कहा कि लकड़ी के उत्पादों तक पहुंचाना है। इसी के क्रम में के हस्तशिल्प के लिए पैकेजिंग से के निर्यातकों के लिए इनोवेटिव इंपीसीएच लगातार प्रयास कर रहा है। संबंधित चुनौतियाँ और अवसरों का पैकेजिंग एक महत्वपूर्ण उपकरण वे ईपीसीएच के ट्रेड फेसिलिटी सेंटर समाधान करना है। जोधपुर के वरिष्ठ है। एक्सपोर्ट प्रमोशन कौंसिल में आयोजित लकड़ी के हैंडीक्राफ्ट के निर्यातक राधेश्याम रंगा ने बताया ये फॉर हैंडीक्राफ्ट्स के एनडब्नुआर लिए अभिनव पैकेजिंग सेमिनार को वस्तुएं विभिन्न प्रकार की लकड़ियों से मेंटरशिप ग्रुप के सदस्य राजेश गुप्ता बनती हैं, और अक्सर जटिल रूप ने अतिथियों एवं प्रतिभागियों को

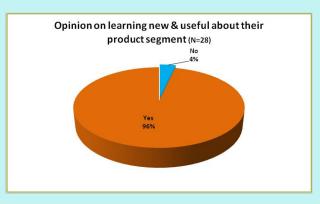
उन्होंने कहा कि ईपीसीएच के से नक्काशी की जाती है। हस्तशिल्प धन्यवाद ज्ञापित किया। संचालन चेयरमैन दिलीप बैद के नेतृत्व में निर्यातक महासंघ के संरक्षक निर्मल ईपीसीएच जोधपुर प्रतिनिधि गोपाल परिषद ने डिजाइन, पैकेजिंग और भंडारी ने कहा कि यह कार्यशाला शर्मा के द्वारा किया गया।

# **Jodhpur Workshop Feedback**



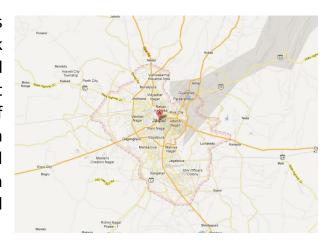






# **CLUSTER 6: JAIPUR**

This famous city is the capital of Rajasthan and has earned universal renown as the "Pink City", and pink it is, with beautiful constructed palaces, havelis and forts. Tall, rugged men with handle-bar whiskers sport bright pink turbans. Jaipur which means the city of victory was built exactly 273 years back and is 262 km by road from Delhi (Capital of India). A strong wall encircles the old city and even today has a suggestion of formidable strength, its function of protecting all within is obvious.



Jaipur encompasses a host of industries including manufacturing industry, engineering industry, textile industry, chemical industry, food industry and more. Jaipur's textile is known for its unique patterns and designs. Located in Jawahar Nagar, Jaipur, Jaipur Textile Industries is one of the best textile industries in the city manufacturing some of the finest pieces of cloth. It manufactures and exports a wide variety of towels, towel products, ladies garments, home furnishings, fabric printings and accessories textiles and is known for its wide variety of Rajasthani prints and designs.

### **Jaipur**

#### **Products:**

- Wooden Furniture
- Blue Pottery
- Sofa Set
- Paper Mache Products
- Kitchen Accessorie
- Lamps
- Table, Sideboard, Chair, Glass Table Top
- Mirror
- Bowls
- Artificial Jewellery
- Flower Vase
- Quilts

Weight: 10 Kg to 150/200 Kg (Blue Pottery 100gm to 7kg), sizes 2 ft to 8 ft

**Critical issues observed:** Excess Packaging materials, cost reduction required, Sustainable packaging requirement, volume reduction, breakage, insect attack, fungus

**Countries of importers:** All developed countries.

Current Packaging materials used: Brown Paper, 5 ply, 7 ply, 9 ply CFB, Die Cut CFB Box, EPE Tube (1/2 inch) 0.8mm EPE, EPE sheet (1/2 inch), Butter Paper, CFB Box (Glue Joint), Rigid Box, LDPE Bubble film, EPE Corner, EPS Corner

### **Suggestions Provided:**

- Volume reduction possible by making dimension of the box appropriate
- 20% of spaces filled with EPS pieces for packaging of blue potteries. Suggested to remove the EPS pieces by using paper-honey comb wrapper in multiple layers (Cost Reduction and Sustainable Solution)
- Number of plys can be reduced from 7ply to 5 ply thereby reducing packaging cost
- No cloth taping to be used(cost reduction possible)
- Suggested to reduce number of strapping from 4 times to 2 times(cost reduction)
- Proper Corrugated board fitments to reduce damage
- Adhesion strength of adhesive tape to be done to solve adhesive tape issues
- Overlapping extra EPE foam to be reduced
- CFB angle board to be used in place of EPE angle board

### Highlights of the Advisory Visit/ Workshop at Jaipur

Date of Advisory Visit: 18th and 19th January 2024

Date of Workshop : 12th March 2024

**Products:** Jaipur, Rajasthan is famous for the following:

- Furniture
- Blue Pottery
- Ceramic
- Paper Mache
- Textile
- Home Furnishings
- Home Décor

Some trends related to Furniture Exports that were observed there include:

10kg to 150/200kg weight range

Dimension 2ft to 8ft

List of countries exported include: Europe, Australia, USA, Middle East

### Field Visit done at following places:

- M/s Neerja International
- M/s Ratan Textiles and
- M/s Ratan Papers
- M/s Dileep Industries Ltd
- M/s Laxmi International Exports
- M/s Sankalp International
- M/s Seet Kamal International

# Pictures of the Advisory Visit/ Workshop at Jaipur

















# Items Produced as seen during the Advisory Visit to Jaipur Factories







**Blue Pottery** 

**Wooden Furniture** 

**Sofa Set** 



**Paper Mache Products** 

# Earlier Packaging Practices (Unit Packaging, Intermediate and Transport Packaging)









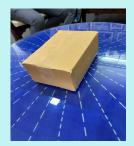






























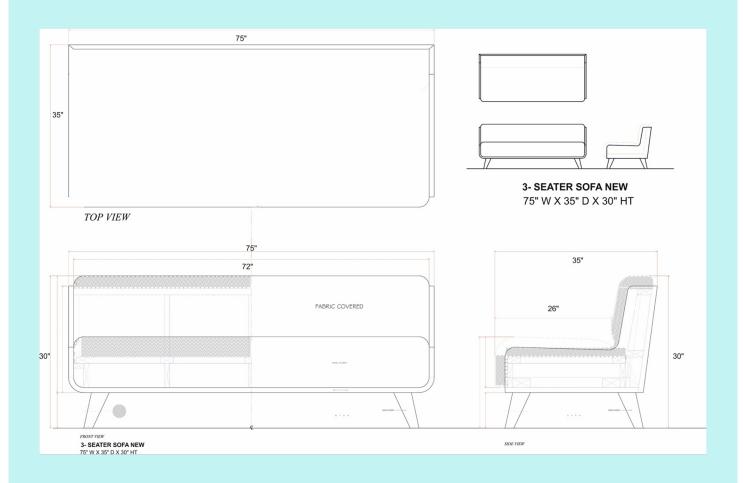








# **New Sustainable Packaging Design with KLD**



## LINE DIAGRAM FOR PACKAGING OF 3 SEATER SOFA NEW



## **Jaipur**

One day workshop conducted at Jaipur Rajasthan on (12th March 2024) by EPCH. The topic of the workshop was Innovative Packaging for Decorative Handicrafts.

During the workshop, all the member exporters including EPCH Board Members, industry leaders and packaging suppliers were present.

More than 60 participants have participated the workshop.

The following was provided in the workshop:

- Study material on Export oriented Packaging
- Basic Functionalities of packaging for Exports.
- Different Critical Factors identified for the packaging of Furniture's, wooden Handicrafts, blue potteries and papier mache to overcome those factors with Packaging.
- Major Distribution factors including storage and Handling for the exports and the requirements of Packaging.
- List of Packaging materials used in the Furniture Packaging and technique to reduce the packaging cost by using design change and changing the packaging materials.
- Different Sustainable packaging materials and display of various packaging materials and innovative Sustainable packaging materials.
- Video on TWT tests and quality control of Packaging materials and Packages for the exports.
- How to improve the packaging of cabinets, Almiras, Tables, Paper Machie products by using various fitments and Cushioning materials. The use of sustainable cushioning Materals.
- Cost Reduction process and value engineering on alternative designs.
- Sample show on Sofa Packaging and demonstration on the fitments by reducing the issues and cost of Packaging.
- Question answering on different issues
- Video demonstration on various packaging process and Testings.
- Discussion on costing

The programme was appreciated by all the participants and they provided their valuable feedback as highly satisfactory.

The participants also requested for more such workshops to be organized in the future.

# **Jaipur Workshop Pictures**



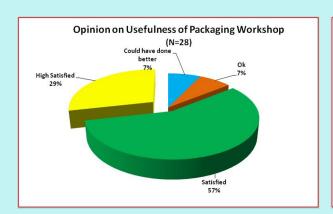


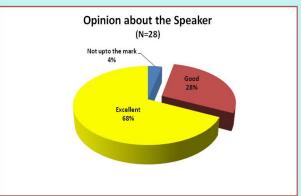






# **Jaipur Workshop Feedback**









# **CLUSTER 7: MUMBAI**

The name Mumbai comes from Mumba or maha-Amba, which is the name of a patron goddess Mumbadevi (of the native Koli community). In the Marathi language, the name means" Mother ". However, some sources disagree with this claim, saying the name Mumbai did not originate from the goddess Mumbai. The weaves of Maharashtra exemplify a rich tapestry of traditional craftsmanship and cultural heritage. From the intricate handloom sarees like Paithani and Karwath Kathi to the vibrant cotton fabrics like Khan and Kosa silk, Maharashtra boasts a diverse range of weaving traditions. Mumbai is a great place to find Indian handicrafts, including brass decor, pottery, carved wood, silver jewelry, and textiles.



#### Mumbai

## **Product Category:**

Incense Sticks, Dhup, Fragrance Candle, Perfumes, Air freshners.

## **Current packaging:**

LDPE Or PP Pouch contains the incense sticks or dhup.

Packed in Multi colours offset printed Duplex board Cartons or FBB (Mono Cartons), Offset UV cured. No laminated cartons should be used.

Intermediate packs are made of Duplex board cartons.

Weight: 16-17 Kgs containing 25 dozens packs

20-21 Kgs containing 25 dozen Packs.

## **Category of Products:**

- 1. Hand made
- 2. Machine made
- 3. Masala batti (Pre fragrance)

**Total 50 Varieties** 

50 different varieties of packs are used. Harmonisation is required.

## **Types of Packaging:**

3 Ply, 5 ply, 7 Ply CFB Boxes are used. B fluted and E fluted CFB are used. Intermediate boxes are glue joint box and outer boxes are RSC types and stappled.

Stack height: 6

**Critical Factors:** Fragrance, Moisture

## **Suggestions:**

- 1. Cost Reduction exercise can be done by reducing no. of plies in CFB Box.
- 2. Height of the box can be reduced to make it as per the standard.
- 3. Bar coding can be introduced
- 4. Anti-counterfeit features may be used in Packaging. Holography sticker may be used.
- 5. Ink adhesion strength needs checked BOPP Tapes should. Close the box properly.
- 6. Handle in the gift box is suggested.
- 7. Rigid box may be used for the premium packaging.
- 8. Handling instruction may kindly be sent.

## **Product Category:**

Metalware and Stoneware

Ganesh Idols: Metal and Stones carved are collected from different places like

Rajasthan.

Smallest idol Weight: 100gms - 5Kgs.

**Heavier:** 5-10 Kgs Heaviest: 350 Kgs

Made out of: stones Crystal, Ruby, blue Saphire, Emarald,

For smaller packs:

Packaging: Velvet Rigid box, PP bag Wrapper, 5ply CFB Bx.

For above 10 Kgs; LDPE Bubble wrapper 3-4 layers, EPS Sheet or EPE Foam. PP

STRAPPING.

Above 100 Kgs: Pallet based wooden boxes are used. Fumigation done before 12

Hours of despatch. No complain received

Export to: UK, USA, Middle East. Rest to all over the world.

## **Suggestions:**

1. Alternative Packaging can be suggested in Paper Rigid Boxes with offset printing on top

**Product Type:** Antique Products

Made out of: Glass articles, Lamps, old Furniture

Weight: 80-100kg Furniture 3 - 4 kg Glass article

## **Current Packaging:**

- Wrapping with two-ply CFB rolls by using 3- 4 layers
- Non-woven fabric cloth looking like tissue paper is used as an inner wrapper of the product
- Old imported corrugated fibre board is wrapped around the product and closing is done using BOPP tape(these boards are either 5 ply or 7 ply) depending upon product weight
- Instead of stretch wrapping, BOPP self adhesive taping is used multiple times to wrap around to hold packages
- Finally, Jute cloth is used cross-wise for wrapping purpose for heavy products and Jute thread is used for bundling purpose

Suggestion: Suggested to use less number in CFB which will reduce the cost (new CFB box instead of old box)

## Highlights of the Advisory Visit/ Workshop at Mumbai

Date of Advisory Visit: 15th and 16th April 2024

Date of Workshop : 28th June 2024

**Products:** Mumbai, Maharashtra is famous for the following:

- Furniture
- Metalcrafts
- Stone Crafts
- Incense Sticks
- Antique Products

## Field Visit done at following places:

- M/s Hem Corporation
- M/s Om Ganesh
- M/s Collectors' Corner Exports
- M/s Home Pack Smart Logistics









# Items Produced as seen during the Advisory Visit to Mumbai Factories





**Metalcrafts and Stoneware** 

**Incense Sticks** 



**Furniture** 



**Antique Products** 

# Earlier Packaging Practices (Unit Packaging, Intermediate and Transport **Packaging) for Furniture**

















#### Mumbai

One day workshop conducted at Mumbai on (28th June 2024) by EPCH. The topic of the workshop was Innovative Packaging for Handicrafts. During the workshop, all the member exporters including EPCH Board Members, industry leaders and packaging suppliers were present.

It was very much successful programme with the participation of more than 50 participants. The whole programme was covered with presentation, discussion, samples demonstration and Video shows.

Following things were provided in the workshop.

- Study material on Export oriented Packaging
- Basic Functionalities of packaging for Exports
- Different Critical Factors identified for the packaging of Furniture's, packaging of incense sticks, stone/ marble wares, antiques etc. to overcome those factors with Packaging.
- Distribution factors in transportation and handling including storage for the exports and the requirements of Packaging.
- Packaging materials used in the Furniture Packaging and other products, technique to reduce the packaging cost by using design change and changing the packaging materials.
- Different Sustainable packaging materials and display of various packaging materials and innovative Sustainable packaging materials.
- Video on furniture packaging, case study, tests and quality control of Packaging materials and Packages for the exports.
- How to improve the packaging of cabinets, Almiras, Tables, stone ware products, incense sticks by using various fitments and Cushioning materials. The use of sustainable cushioning Materials.
- Cost Reduction process and value engineering on alternative designs.
- Sample show on Sofa Packaging and demonstration on the fitments by reducing the issues and cost of Packaging.
- Question answering on different issues
- Video demonstration and display of samples.
- Discussion and questions answering.

The overall programme was very nice and interactive.

The programme was appreciated by all the participants and they provided their valuable feedback as highly satisfactory.

The participants also requested for more such workshops to be organized in the future.

# **Mumbai Workshop Pictures**

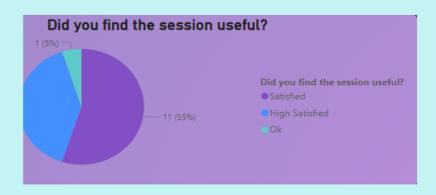


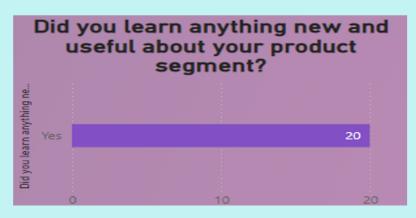


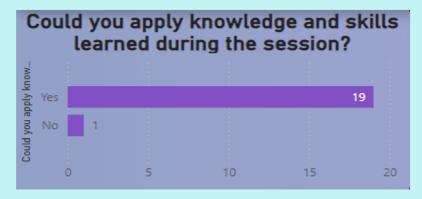




## **Mumbai Workshop Feedback**









# **CLUSTER 8: KOLKATA**

Kolkata position as one of India's preeminent economic centres is rooted in its manufacturing industries, its financial and trade activities, and its role as a major port; it is also a major centre for printing, publishing, and newspaper circulation, as well as for recreation and entertainment. Among the products of Kolkata's hinterland have been coal, iron, manganese, mica, petroleum, tea, and jute. The handicraft industry in Kolkata, West Bengal is rich in history and culture, and includes a variety of products such as Terracotta, Brass and bell metal, Jute, Dokra art, Hand-woven sarees etc.



## Kolkata

#### **Products:**

- Wooden Furniture
- Almirah
- Musical Instruments
- Leather Products
- Katha Stitched Dress Material
- Wooden walking sticks
- Christmas Gifts
- Jute and Canvas Bags/ Leather Bags
- Weight: Weight of Chair: 7-8kg, Dimension for Chair: 24x20x45 inch Weight of Almirah: 30kg, Dimension for Almirah: 46x23x86 inch

Critical issues observed: heavier weight, scratches, dust, moisture, fungus, sustainable packaging requirement

**Countries of importers:** All developed countries.

Current Packaging materials used: Brown Paper, 5 ply, 7 ply, 9 ply CFB, Die Cut CFB Box, EPE Tube (1/2 inch) 0.8mm EPE, EPE sheet (1/2 inch), Butter Paper, CFB Box (Glue Joint), Rigid Box, LDPE Bubble film, EPE Corner, EPS Corner, plywood, release paper, corrugated sheet, stretch film, moving blanket, non- woven fabric, air bubble ribs, silica gel

## **Suggestions Provided:**

- Single-joint box, glue-joint box, 5-ply CFB box in place of 7-ply CFB for cost reduction
- Box of appropriate size to avoid problems
- Release Paper to protect the printed surface and to solve sticking problems
- Removal of cloth taping, to use paper based PSA solution
- Cellophane film can be used instead of PP poly laminate for leather bag
- For Walking Stick, flip-top opening style(with locking system) is suggested
- Plastic Handle to be provided in CFB for easy carrying
- 3-ply CFB Telescopic box is suggested for packaging of trays
- Paper Honey Comb is suggested in place of bubble film(Sustainable Solution)
- H- type taping is suggested for box closing
- Cost Reduction possible by using 7-ply instead of 9-ply
- Single joint box is suggested instead of 4-joint box for musical instruments
- White craft liner instead of duplex board to get proper box strength
- H- type BOPP taping instead of 3 times BOPP taping on box

## Highlights of the Advisory Visit/ Workshop at Kolkata

Date of Advisory Visit: 6th and 7th May 2024

Date of Workshop : 29th June 2024

**Products:** Highlights of Handicrafts Export Products from Kolkata, West Bengal

Wooden Furniture, Almirah, Musical Instruments Leather Products, Katha Stitched
 Dress Material, Wooden walking sticks, boxes, Christmas Gifts, Jute and Canvas Bags

• Dimension for Chair: 24x20x45 inch; Dimension for Almirah: 46x23x86 inch

Weight for Chair: 7-8kg; Weight for Almirah: 30kg

• Exports to: USA, Japan, Germany, France, Australia

## Field Visit done at following places:

- M/s Chisel Arts
- M/s Sasha Associations for Crafts
- M/s Pakrashi & Co.
- M/s Hitaishi Kk Mfg & Co.
- M/s New Era Overseas
- M/s Richie Bags & Fashions P Ltd













## Items Produced as seen during the Advisory Visit to Kolkata Factories



**Wooden Furniture** 



**Musical Instruments** 



**Stitched Katha** 



**Wooden Walking Sticks** 



**Christmas Gifts** 



**Jute and Leather Bags** 

# **Earlier Packaging Practices (Unit Packaging, Intermediate and Transport** Packaging)





















#### Kolkata

The one day workshop on Innovative Packaging for Handicrafts is organised at Kolkata (29.06.24) by EPCH. During the workshop, all the member exporters including EPCH Board Members, industry leaders and packaging suppliers were present.

The programme was very much successful with the participation of more than 56 exporters. The whole programme was covered with PPT presentation, discussion, samples demonstration and Video shows.

Following was provided in the workshop:

- Study material on Export oriented Packaging
- Basic Functionalities of packaging for Exports
- Different Critical Factors identified for the packaging of Furniture, packaging of Leather products, Jute/cotton bags, Terracota, cane and bamboo products, Dokra, natural fibre products, katha Stitch, Gift items etc. to overcome those factors with Packaging.
- Distribution factors in transportation and handling including storage for the exports and the requirements of Packaging.
- Packaging materials used in the Furniture Packaging and other products, technique to reduce the packaging cost by using design change and changing the packaging materials.
- Different Sustainable packaging materials and display of various packaging materials and innovative Sustainable packaging materials.
- Video on furniture packaging, case study, tests and quality control of Packaging materials and Packages for the exports.
- How to improve the packaging of Furniture, packaging of Leather products, Jute/cotton bags, Terracota, cane and bamboo products, Dokra, natural fibre products, katha Stitch, Gift items etc. to overcome those factors with Packaging. The use of sustainable cushioning Materals.
- Cost Reduction process and value engineering on alternative designs.
- Sample show on Sofa Packaging and demonstration on the fitments by reducing the issues and cost of Packaging.
- Question answering on different issues
- Video demonstration and display of samples.
- Discussion and questions answering.

The programme was appreciated by all the participants and they provided their valuable feedback as highly satisfactory.

The participants also requested for more such workshops to be organized in the future.

# **Kolkata Workshop Pictures**

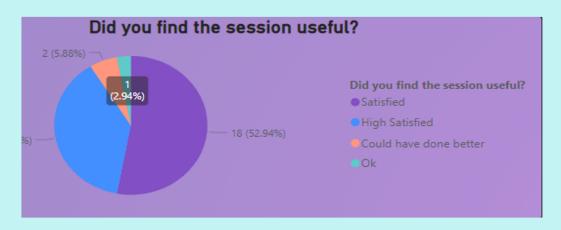








## **Kolkata Workshop Feedback**









# **CLUSTER 9: NEW DELHI**

New Delhi, national capital of India. It is situated in the north-central part of the country on the

west bank of the Yamuna River, adjacent to and just south of Delhi city (Old Delhi) and within the Delhi national capital territory. Lacquer work and pottery also feature amongst the famous crafts of the early times, which were prevalent during the rule of Mughals and are still doing great. The capital of India is famous for many things including Delhi handicrafts. The market of Handicrafts in Delhi or Delhi crafts is huge because every craft of the country reaches Delhi before going anywhere else. Art and craft has found a significant place in Delhi because so many dynasties and emperors ruled Delhi. Every dynasty coming and ruling in Delhi brought its own unique style of art and craft. Mughals being great patrons of art and craft brought some rich legacies. Though all of them didn't survive, there are many that are still existing and



flourishing. The various handicrafts and handlooms in Delhi include textile, artifacts, and antique jewelry. Being a mega city, Delhi has some finest handicraft outlets.

## New Delhi

#### **Product**

Marble Coaster

Weight: 3.2kg

Current Packaging materials used: EPS, Moulded fitments, 7-ply RSC, CFB glue-joint, H-type closing

**Critical issues observed:** Sustainable packaging required, cracking in CFB flaps

Suggestions Provided: Honey Comb paper fitments instead of EPS moulded fitments, Proper-quality adhesive to be used

#### **Product**

Paper Globe

Weight: 300gm

Current Packaging materials used: CFB box(CSE 5-ply glue-joint CFB box), wrapping using bubble film with EPS sheet on top and bottom

**Critical issues observed:** 2% breakage, denting in exports, lot of gaps in the box

Suggestions Provided: Boxes to be made as per product size, metal part of globe to be protected by using U-type EPE foam wrapping, corrugated board fitment to be used instead of EPS as sustainable packaging solution and cost reduction

#### **Product**

Wooden Candle Stand

Critical issues observed: Metal parts detached from the Wooden Candle Stand, Dust, Opening of wooden joints during drop test

Suggestions Provided: Using Corrugated Fibre Board fitments to restrict the movement of Wooden Candle Stand in the Corrugated Fibre Board box(currently no such fitments are used), It is advisable to remove dust from all the products before Packaging, Packaging to be carried out in dust-proof room

#### **Product**

Glass

Weight: 350 gm

Current Packaging materials used: 5-ply CFB box with top and bottom EPS mould and bubble film wrapping

**Critical issues observed:** It is reported that Cost reduction is necessary in Glass container packaging where existing Packaging is:

Bubble wrap with Top and bottom EPS fitment in 5-ply corrugated fiber box

Suggestions Provided: Suitable CFB fitment can replace use of EPS moulded parts used in Top and bottom, it is suggested to reduce number of plys from 5-ply to 3-ply by using C-fluted board, it is also suggested to use glue-joined box instead of staple-joined box

#### **Product**

Paper Mache Balls

**Current Packaging materials used:** 3-ply RSC CFB box with separator fitments

**Critical issues observed:** Scratches on printed Paper Mache ball surface, currently no wrapper is used in Paper Mache balls

Suggestions Provided: It is suggested to use Silicone coated Paper wrapper for each individual balls to get rid of scratching during transit, CFB separators can be used to stop the movement of ball inside the box, the box dimension could be modified to get the balls to fit tightly inside the box so that there is no movement during transit, TWT test should be done to ensure that there is no scratching as per the test results

#### **Product**

Cushion Covers

**Weight:** 6 – 7kg

Current Packaging materials used: 5-ply B-fluted CSC CFB box, H-type closing, crosstaping, double -joined box, heat sealed bag, 3-ply CFB box

**Critical issues observed:** Cushion covers are individually packed in BOPP pouch and finally it goes inside a paper envelope, total 15 kg net weight is being packed in a double joint CSC style inside a CFB box with "H" type BOPP taping for closing. Lots of height-wise gaps are observed, Box is found to be deformed due to stacking in a wrong manner

Suggestions Provided: It is suggested to reduce the gap inside the box by reducing the box height, Single – Joint box can be used, Marking (this side up) to be printed on the CFB box for stacking properly into the warehouse, it is suggested not to use any crosstaping which is an unnecessary and leads to wastage of money

#### **Product**

Mirrors

Weight: 8kg, Size : 8" - 4"

**Current Packaging materials used:** Bubble film with CFB box

Critical issues observed: Replacement of plastic-based foam for the exports to Europe, **USA** and Australia

Suggestions Provided: Paper Honey comb wrapping, Paper Corner, Paper Cushion (15-ply CNC Lathe cutting), Die-cut fitment to be used, 7-ply CFB box with single-joint to be used ,Handle may be provided in the box for smooth handling purpose

#### **Product**

**Brass Items** 

**Weight:** 100 gm – 250 kg; Size: 1" to 72"

Current Packaging materials used: EPS, EPE, bubble film, CFB box, wooden box(above 20kg)

Critical issues observed: Breakage of idol legs (currently EPS, EPE, bubble film and Corrugated Fibre Board box double-joint 7-ply are used ), Box deformation

Suggestions Provided: Critical part of the metal idol needs to be wrapped with "C" shaped EPE- foam ,Empty space needs to be properly filled up, Size of the box to be reduced as per the size of the contents inside, BOPP self adhesive taping to be done in "H" shape, No crosstaping to be used, Single-joint box to be used in place of double-joint

#### **Product**

Home Decor

**Weight:** 10gm – 15kg, Size 40 - 60 cm

Current Packaging materials used: 5-ply CFB box virgincraft, H-taping

**Critical issues observed:** Moisture content of the box is increasing while reaching to the exporters

Suggestions Provided: It is suggested to use sufficient quantity of Silica Gel sachets to absorb moisture, Initial moisture content of the box is reported to be 14-15% which is on the higher side, it is suggested to receive the boxes at maximum 9-10% moisture content , it is advisable to starch based adhesive for making the boxes. No silicate adhesive to be used

Other Products: Artificial Jewellery, Photo Frame, Embroidery, Resin work and Christmas Gifts

#### **Observations**

- It is reported that exporters are doing Packaging as per Packaging specification provided by importers
- Many of the CFB boxes used are found to be overspecified
- A separate cost –reduction is possible (Eg: reducing number of plys and Burst Factor of the paper)
- In many cases, the weight of the gifts are only 10gm and maximum is 3-5kg, hence box modification may help to reduce the packaging cost

## Highlights of the Advisory Visit/ Workshop at New Delhi

Date of Advisory Visit: 22<sup>nd</sup>, 23<sup>rd</sup> and 24<sup>th</sup> May 2024

Date of Workshop : 24th August 2024

**Products:** Highlights of Handicrafts Export Products from New Delhi

Weight: 10 -15 kg

Dimensions: 5cm upto 182 cm

• World – wide exports

- Smaller gift items have more demand
- Exports to: USA, New Zealand, Germany, UK, France, Netherlands, Australia, Canada, Middle-East

## Field Visit done at following places:

- M/s Asian Handicrafts Pvt. Ltd
- M/s QTL Creations
- M/s Exmart International Pvt. Ltd
- M/s Mir Handicrafts Pvt. Ltd
- M/s Garud Fabs
- M/s LTS international
- M/s Mani Overseas
- M/s Kannodia Global Pvt. Ltd

















## Items Produced as seen during the Advisory Visit to New Delhi Factories



**Paper Globe** 



**Wooden Candle Stand** 



**Marble Coaster** 



**Paper Mache Balls** 



**Cushion Pillow** 



Glass



**Home decor** 



**Brass Items** 



**Cushion Covers** 

# Earlier Packaging Practices (Unit Packaging, Intermediate and Transport Packaging)





































# Earlier Packaging Practices (Unit Packaging, Intermediate and Transport Packaging)































# Paper Globe (Newly Developed Packaging )

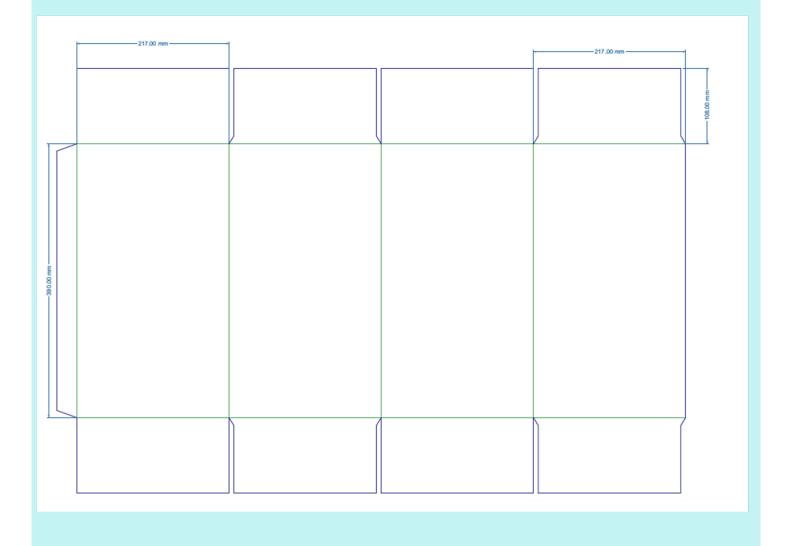








# **Paper Globe (KLD for Newly Developed Packaging)**



#### **New Delhi**

The one day workshop on Innovative Packaging for Decorative Handicrafts is organised at New Delhi (24.08.24) by EPCH.

During the workshop, all the member exporters including EPCH Board Members, industry leaders and packaging suppliers were present.

The programme was very much successful with the participation of more than 15 exporters. The whole programme was covered with PPT presentation, discussion, samples demonstration and Video shows.

Following was provided in the workshop:

- Study material on Export oriented Packaging
- Basic Functionalities of packaging for Exports
- Different Critical Factors identified for the packaging of Marble Coaster, Wooden Candle Stand, Paper Globe, Glass, Cushion Pillow, Paper Mache, Brass Metalcraft, Home Décor and Christmas Gifts etc. to overcome those factors with Packaging.
- Distribution factors in transportation and handling including storage for the exports and the requirements of Packaging.
- Packaging materials used in the Decorative items Packaging and other products, technique to reduce the packaging cost by using design change and changing the packaging materials.
- Different Sustainable packaging materials and display of various packaging materials and innovative Sustainable packaging materials.
- Video on sustainable packaging and TWT testing
- Providing solutions to various packaging issues faced by exporters
- Cost Reduction process and value engineering on alternative designs.
- Question answering on different issues

The programme was appreciated by all the participants and they provided their valuable feedback as highly satisfactory.

The participants also requested for more such workshops to be organized in the future.

## **New Delhi Workshop Pictures**





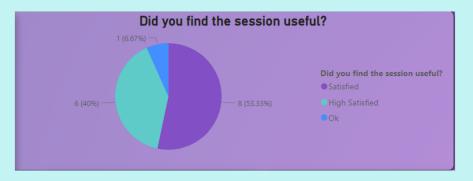






## **New Delhi Workshop Feedback**

Innovative Packaging for Decorative Handicrafts Products at New Delhi, 24.08.2024









## **Cost Comparison**

- PE Bubble Film 40 GSM @Rs 7.50 per metre, Rs 780/- per roll
- PE Bubble Film 50 GSM @Rs 9.50 per metre, Rs 780/- per roll
- PE Bubble Film 60 GSM @Rs 11.50 per metre, Rs 780/- per roll
- EPE Per SFT –
- 1mm Rs. 0.50/-, 2mm.- Rs.0.82/-, 3mm-Rs. 1.17/-, 5mm-Rs.2.84/-
- Corner- Rs.4.35/- per pc (15mm)
- EVA 3mm Rs. 1.80/- per Sqm,

4mm-Rs. 2.40 per Sqm,

5mm-Rs. 3.06 per Sqm

- Paper Honey Comb @Rs 549/- per 100 metre roll,
   @Rs 849/- per 250 metre roll,
- Paper Bubble Wrap @Rs. 949/-per 250 metre roll,
- Paper corner @Rs.8/- to Rs. 10/- per pc
- Paper Cushion slot @ 10/- per Ft.

# **List of Packaging Suppliers**

S N	M/s V M Technologies Mr. Chandan Jain, Promoter Add: E-8182, Site-IV UPSIDC, Gurajpur Industrial Area, Greater Noida Mob: 9810899301 Email: chandan@vmtechno.com	M/s Acumen Packaging Pvt. Ltd Mr. Amrut Mhatre Mob: 9769213425 Email: amrut@acumenpackaging.com	M/s Ganesh Packaging Mr. Rajan Harjai, Add: B-200, Sector – 1 Bawana, Industrial Area, New Delhi – 110039 Mob: 9873304300 Email: info@cusionbags.com
t N	M/s Madhav Enterprises Mr. Harish Gupta, Add: khasra no 402,424 dholana ehsil, Uttar Pradesh 245301 Mob: 9999607944 Email: madhaventerprises53@gmail.com	M/s Sai Paper Pack Ms. Samidha Add: Khasra N0361, Village, Surajpur Industrial Area, Gulistanpur, Greater Noida, Uttar Pradesh 201306 Mob: 9910193960 saipaperproducts@gmail.com	M/s Continental Packaging Mr. Kunal Agrawal Add: Khasra No. 478, Extended lal Dora, Village Alipur, Delhi 110036 Mob: 9312005275 Email: packcontinental@gmail.com
k S N	M/s Packraft Container Pvt. Ltd Mr. Vanshay Vashishta, Director Add: Plot No.184-184-A, Gali No. 2, crishna Colony, indl. Area, opp. Sector 25 Faridabad, Haryana Mob: 99991 67633, 9810091779 Email: vikram@packraftindia.com, /anshay@packraftindia.com	M/s Ace Packaging Solutions Mr. Vikram Singh Mob: 9810264335 Add: Plot No. 31, Kh No. 53, IPS Industrial Compound, Morta Meerut Road, Ghaziabad U.P. 201003 Email: vikaram.aceproducts@gmail.com	M/s Invo Pack Pvt. Ltd Mr. Alkesh Sharma Add: Plot no. 399, Patparganj Industrial Area, Delhi 110092 Mob: 98995 90060 Email: invopackpltd@gmail.com

# **List of Packaging Suppliers**

M/s Prem Industries India Limited, Mr. Vishesh Gupta Add: Plot no-32, Ecotech 12, Greater Noida, Mobile - 99995 66695 Email: vishesh.bansal@premindustries.in	M/s. Package Design Research & Test Lab Mr. Lalit Mohan Gupta Mob: 9837037190 Email: pdrtlindia@gmail.com	M/s N R Packaging Industries, Mr. Devender Plot no. F 599, Phase II, UPSIDC, Industrial Area, MG Road, Hapur, UP Mobile - 93122 30697
M/s P R Packaging Pvt Ltd., Mr. Vishesh Gupta Sehrola Road (Chhaprola Road Near Bani Mandir, Pirthla, Haryana 121102 Mob: 91 98184 98220	M/s Nirmal Packaging pvt Ltd, Mr. Pradeep Gupta 209,210, Ecotech 1,Greater Noida, GB Nagar, UP Mob: 98101 55140	M/s Greencore Packaging, Mr. Bhavya Jain G-1/274-275, Opp. Honda Cluster Zone, RIICO Industrial Area, Khushkhera, Bhiwadi, Raj 301707 Mobile - 7665505000
M/s Greenedge Packaging, Mr. Ananya Jain G-1, 841/842, Opp. Industrial Area, Khushkhera, Bhiwadi, Raj 301707 Mobile - 9610524341		

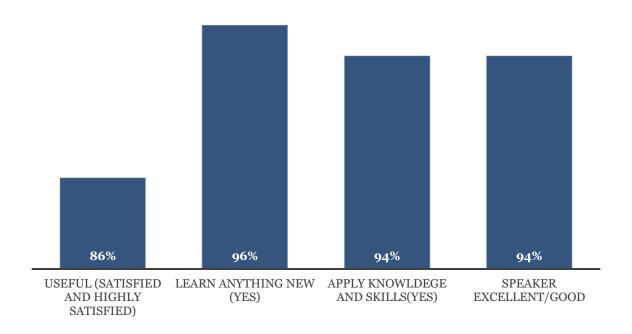
## **Summary of the Report**

As per the guidelines of EPCH total nine clusters areas were covered.

- 1. Total numbers of places visited
- 2. Total number of participants
- 3. Total no of factories visited
- 4. Total no. of Sustainable Prototype Packaging solution
- 5. Total no. Of KLD design made
- 6. List of Sustainable packaging materials suggested
- 7. List of packaging suppliers
- 8. Tentative Cost comparison sheets
- 9. Way Forward

Place	Number of Factories visited	Number of Participants in Workshop	Number of KLD Designs prepared
Agra	3	50	1
Firozabad	3	55	1
Saharanpur	5	60	1
Moradabad	4	100	3
Jaipur	7	60	1
Jodhpur	6	80	1
Mumbai	4	50	-
Kolkata	6	56	-
Delhi	8	15	1

## Overall Feedback across all Workshops (in %)



## **Way Forward**

The initiative taken by EPCH for visiting different industries and organizing workshop in packaging has given tremendous results. It has been observed that the feedback received from all the programs were highly satisfactory in nature. The suggestions given in the Sustainable Packaging domain has been well accepted by the industries which will be highly beneficial for their exports. Packaging is a continuous subject, the updating of knowledge and application in the practical field is very much necessary for all the exporters in the field of Handicrafts. Hence, it is necessary to continue the activities which include the advisory visit to factories and the workshops for the dissemination of knowledge to all the exporters at various zones of India.

In this regard, it is proposed to conduct similar programmes by EPCH for the upcoming financial year. A table of schedule maybe prepared in advance for systematic approach to the industries. In this regard, it is proposed to the EPCH for the approval of similar programmes in the upcoming financial year.