Report of
Need Assessment Survey
of Design Awareness Programme
for Barpeta Bamboo Cluster under Design Clinic Scheme

Organised by - State Institute of Rural Development (SIRD), Assam

Submitted by
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Content

Introduction 4
Barpeta 5
Barpeta & Bamboo 6
State Institute of Rural Development, Assam (SIRD) 7
Bamboo Cluster 8
PRODUCTS 10 - 17
Furniture
Table top Accessories
Lighting
Jewelry
Sceneries & Stationery
UNITS 20 - 46
1-30 Units
Opportunity Areas for Design Intervention 48 - 59
Design Clinics Workshop 61
Day-wise Activity 67
Sketches by Artisans 74
Product Development 76
Final Products 85
Product List 90
Outcome & Conclusion 91
Introduction

Design Clinic Scheme (DCS) for MSME is an initiative of Ministry of Micro, Small and Medium Enterprises, Government of India, to bring MSME sector and designers together to a common platform to provide design advice and solutions for identified problem areas of MSME sector and bring improvements, innovation and value addition in the existing products and services. DCS is intended to bring exposure to Design thinking and process to MSMEs towards Design awareness, improvement, evaluation, analysis as well as design related interventions and applications.

The objective of DCS is to enhance industrial competitiveness and productivity with the help of design intervention structured to provide design related support through design awareness seminar, design awareness programs, need assessment survey, workshop and design projects to provide design inputs towards enhancement of existing products and services.

As part of the above mentioned scheme this 'Need Assessment Survey' was conducted in the Bamboo Cluster at Barpeta, Assam. The study was intended to generate design information flow for creative, innovative and futuristic approach towards products, processes, operations, manufacturing and business design.

Barpeta

Barpeta is located at 26.32°N 91.0°E.[2] It has an average elevation of 35 metres (114 feet). It is 44 km away from Manas National Park. Three rivers - Chaulkhowa, Mora Nodi (Dead River) and Nakhanda, both of which are tributaries to Brahmaputra run through the town.[3]

The nearest railway station is Barpeta Road. Buses come from the capital Guwahati, Assam and all major towns every 15 minutes. The nearest airport is LGB International Airport Guwahati. It can also be reached by water: the nearest port is Dhuburias has said by Main Uddin.

Barpeta is the gateway to Manas National Park, one of the largest forests of Assam and one of the few tiger reserves of India. It is also famous for the various temples in the district.

Barpeta Road Railway station is the nearest station. The River Beki passes through Barpeta Road city. The city is the gateway to Manas National Park which is situated only at a distance of 18 km from it. Manas National Park harbours 55 mammals, 36 reptiles and 450 species of Birds and has the unique feature of having most number of Endangered species found in India.
Barpeta Bamboo

Barpeta is also renowned for its bamboo crafts. Skilled crafts clusters dotted across the region are well known for transforming the fibrous bamboo into beautiful woven baskets, accessories, utility products as well as souvenirs. Products include fishing nets, baskets, sieves, large grain storing vessels are all made from bamboo.

With the support of the state, special efforts have been taken by the craftsmen to establish a market to sell bamboo products. It is also remarkable is see that the traditional market, which was always used by the local people to make items for agricultural or domestic purpose has now modernised. Bamboo products are being moulded through technology intervention to make products that find buyers in both the national and international market.

Different Kinds of Bamboo available

- Muli (Melocannabambusoides)
- Dalu (Teinostachyum dalloa)
- Khang (Dendrocalamus longispathus)
- Kaligoda (Oxytenanthera angroclaria)
- Pecha (Dendrocalamus Hamilton) to name a few.

State Institute of Rural Development, Assam (SIRD)

SIRD, Assam is an apex institute for training and research in the broad field of Panchayati Raj & Rural Development. It may be mentioned in this context that the SIRD was declared autonomous by the State Government in the year 1998 and has been working in close coordination with the State Government through its Governing Body/Advisory Committee.

The State Institute of Rural development (SIRD) Assam was notified by the Government of Assam in March 1981 and was brought under the Centrally Sponsored Scheme in September 1987. The Institute was registered in April 1998 under the Societies Registration Act 1860 and thereafter the State Government conferred upon the Institute administrative and financial autonomy. In the beginning the Institute was being run by officers and staff of the Directorate of Panchayat and Rural Development Department and it functioned from its premises at Barsajai Village, Beltola which was located away from the city of Guwahati.

Every year, the SIRD organizes a large number of training courses covering different clientele groups. They are officials working at State, District, Block and Gram Panchayat level under the Department of Panchayat & Rural Development, officials of Line Departments, elected representatives of Panchayats belonging to three tiers, representatives from different institutes, organizations, NGOs, CBOs. Self employment oriented training programmes on skill and management development for youth, entrepreneurs, farmers, women, etc.
The cluster consists of 30-35 units, which has been sponsored and supported by SIRD Assam and various banks with their subsidised loan schemes. Mr. Anwar Hussain, the coordinator of the cluster along with SIRD authorities has been working with bamboo artisans to bring up their lively hood since past several years. They have been very successful in doing sams and has been appreciated by different development agencies. Their effort has brought roads and electricity to the village. It has helped all the children in primary education and their health care. As a system it is a win win situation for all the participants and stakeholders. Bamboo is readily available crop along the village, so each household has taken the responsibility of atleast work 8 hours on producing a simple artifacts for household uses.

Most of the cluster members are just dependent on the bamboo products as main source of income. Male and female are equally contribute to the production of bamboo products occasionally helped by the children of the family. The cluster now finds itself in a stagnant position as they are not able to capture any new market or ask for higher price for the products as there is nothing new with the products.
Furniture

Joineries not worked on properly

The details are very weak and crude

Furniture and details

Over engineered furniture

Too many components

Joineries not worked on properly

Deer engineered furniture and details

Product Design, redesign, Product Development

There is a lot of input required for development of new products with respect to new markets and users. Designing of furniture requires a lot of technical knowledge about material, technology, and process. Furniture details also gives a lot of life to the product, aesthetically as well as life span. Redesign of existing products to ergonomically suit different seating postures will help to put different kind of furniture in market without much of investment. Redesigning furniture and structures from the waste of other products can be a real added advantage.

Technology, modernization and collaboration

Technology will help the furniture industry to flourish as a cluster, but if done in an informed and educated way. Modernisation often has proved futile when a road map of future development and the recovery of investment is not considered. Technology usually brings the end of the hand crafted culture or products as they are not able to do the customisation of products in a certain way. Collaboration with different clusters and institutes can promote there art and culture in a direction which will help to integrate and probably flourish their livelihood as well as their craft.

Innovation in process and related areas for design intervention

Innovation in process can be taken in design as well as production. Marketing strategy can also be one of the process with which they can do market diversification. Innovation in the process will lead to higher returns with low investment. Innovation can be done in the way the raw materials are handled and stored so as to be used faster and optimally. It can also be done in the way furniture are designed according to the basic human proportions and needs. Innovation can be done during the process of making the furniture by giving it proper details for increasing the aesthetics, use of excessive material and to do finishing irrespective of ones needs. Design Intervention can also be carried on using the waste produced by the process or product.

Ergonomic and Environment factors

As the product range, furniture is one in which a lot of consideration need to be put into ergonomics. Furniture are made according to the engineering point of view and keeping in mind some pints of aesthetics. Furniture are not made according to different context, as these context would govern the ergonomic principles of the furniture. Different age groups need to be addressed and product line should cater to all age groups ergonomically.

Ergonomics play a long way in which products are recognised in the market. Furniture especially need to be designed keeping in mind the whole structure of human body as well as the population which it caters to.

To improve the process of manufacturing and productivity

The manufacturing process is not very defined in the cluster as each one of the units have there own way of sourcing material, seasoning and developing there furniture. Though the manufacturing process do not vary a lot, but the inter cluster engagement in creating a common manufacturing process is lacking. The tools used for manufacturing is also quite diverse, which may range from hand tools to highly mechanical production process. Also that the distance between the individual units to the common facility center and the individual units are large, it becomes really difficult to accesses them often.

To add value to the products or services concerned and increase their competitiveness

To add value to the product, it is very important to know the user group and the market that you are working for. Competitiveness can be achieved only by giving better designed products which satisfy the customers needs better than that already available in market. Bamboo is fast accepted as the material of choice for various products including the furniture industry.
Table top Accessories

These products are made with higher labour and finish, but still fetch very little with the businessman. These products are used as table top accessories or as stationaries. These products use very intricate hand techniques which have been simplified by using electric machinery. Most of them use the outer layer of Bamboo stem, which facilitates bending and better finish.

Various products under this section

- Flower vase
- Penstand
- Magazine rack
- Fruit Trays
- Beer Mugs

Average earning of making one piece ranges from Rs 25 to Rs 150, which is very less than what is sold in the market.

Product Design, redesign, Product Development

Design of the products needs to have a refined aesthetic taste and function with the help of materials as well as process. Form aesthetics play a very important role in the selling of such products in open market as well as trade fares. Most of these designs are just repetitive, with very less amount of innovation in terms of functional need of the user. The products are usually made of the outer skin of the bamboo which renders the rest of the bamboo as a waste as it is not used for further products. Redesign of the products will not be much of the use as it is optimised in all respect for a production process and function. We need to find different avenues where we can diversify the product range. Product development need to happen in a phase wise manner where we look into the various aspects of design in a system level where we can benefit the maximum from.

Technology, modernization and collaboration

The use of technology in these products are very limited to finishing. Technology can be used in getting the finer pieces of the products in less labour intensive and much finished way, which will help increase the production as well as profit. Modernisation with tools will help the artisans to create different products which they think would be not possible by using traditional hand tools. They will also be able to make much better progress if they can distribute their work in the cluster and collaborate for overall growth.

Research and development directions for future initiatives

All big design and experiment centre are situated in city but actually they should have been located in rural and remote area. The areas are so remote that there are not even public transports in some region. The artisan must be given proper training as well there should be assurance of continues work. Generally the training is provided but there no work organized or continues work provided after training. So due to discontinuity of training and work the artisan loose skill and shift back to same.

Exhibition/Display design opportunities

These products if displayed properly in the retail stores and the exhibition areas can be a great crowd puller. There also need to be addition of some products which are not displayed already. The artisans store these products for a long time before they put it in the display of exhibition, due to which they loose the finish and shine.

Products need to be displayed according to the value of the same. The rural artisans are poor and uneducated, due to which they are not able to get urban exposure to understand their taste of display.

To reduce rejections, wastages in material, process, resources and the drudgery in labor

Waste is one of the major outcome the production process in table top accessories. They usually use the top layer of the bamboo to make the accessories. The rest of the part os used as fire wood or making roofs and hedges. They are very good quality bamboo and can be used for various purposes in making bamboo boards or structural components of the other products. Waste can also be reduced by proper storage of these products as they have very less resistance to termites and changing climate. They are not completely destroyed but they need much of repair before can be used. Some of the process like transportation of bamboo can be quite laborious as they involve manual labour for transporting bamboo over short distances.

Packaging, logistics and storage related design opportunities

Packaging of the table top accessories plays a huge role in grabbing the market. A well packed and presented products are well accepted in the market. Packaging also increases the life span of the products. Packing will ensure the safety of such products in long term storage, transporting and longevity while being used. It also ensures that one is the first person to use the item. Logistics of long distance transport is often taken care by the middle man as he procures these products in bulk.
Lighting products are recently introduced in this cluster. They are one of the most products in demand. They serve a niche clientele and margin of profit is also larger. These products tend to imitate already existing product using bamboo.

Products that fall under this section are
* Bed lamp shades
* Reading lamp
* Hanging lights
* Side lamps.

Lamps are usually made in different pieces and assembled together. They sometimes tend to show too many design elements in a single product without an harmony in the form. We will try to simplify the form as well as give contextual understanding of the lighting products while people are using such products.

Product Design, redesign, Product Development
Lighting products out of bamboo has been used since ages, but very little has been explored by the cluster to improve the quality of the lighting and the fixture. The output of the light intensity has not been looked upon and the product aesthetics are replication of traditional lighting products like lantern or traditional architecture. Redesign of the products can be done in the way a person would experience the light at different context. Like soft light, up light, focus lights. This will also help in giving different details to the individual products. Product development needs to happen in terms of experiencing the quality of light. There needs to be a phase wise development of this product with a sound knowledge of the market.

Technology, modernization and collaboration
Use of modern lighting fixtures with a focus of product development will make the products fit for different contexts. Technology of adding other materials with bamboo for creating these fixtures can be a great idea. Collaboration with companies already into lighting fixture design will open up a whole new world of development to these cluster. As bamboo is a green material and also that it can be easy worked with hand over relatively cheaper labour can attract a lot of companies to invest in their lighting range.

Research and development directions for future initiatives
A lot of design and development needs to be done in this field of design before you can have a range of products in the market. As the products available now are more to do with the aesthetics of the form as well as simplicity of working with the material. Research need to collaborate with the material development as well as the experiential part of the product design. There is a whole new range of products which can be developed on these line as very little companies are focusing on mixing bamboo with the lighting design.

Innovation in Production Process
As lighting design can be a very innovation design process & product. Production process is one of the most vital part of the design process as things comes into being, and is directly put into the market hence forth. Optimization of the production process also determines the amount of profit gained by the product in the market. With the unique qualities of bamboo it is very essential to innovate in each of the process so as to reap maximum benefit.

Exhibition/Display design opportunities
Exhibition and display will help the artisans to showcase their work to a larger crowd and market. Lighting design in a shop/counter can be a great crowd attracter if it is done with good taste. Lighting design allows one to play with form and also allows you to have a range of products with little changes in the form but with larger outcome of experiences with the product.

Packaging, logistics and storage related design opportunities
Packing of lighting products should be done with utmost care as they are highly fragile and tend to get damaged faster. Artisans are not used to packing their products as they don’t sell it to the open market. Bubble wrapping as well as newspaper filling may ensure certain cushion is maintained while transporting, but corrugated sheets can be used for extra protection while storage.

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Jewelry

Making jewellery out of bamboo is a very traditional art form of Assam. These artisans have acquired the knowledge traditionally and are trying to keep the dying art alive.

Various intricately crafted jewelleries are made out of bamboo.

* Ear rings
* Necklace
* Bangles
* Hair pins

They use the finest quality of bamboo to make the jewellery and take a lot of care in the finishing. Its a slow process and it takes a lot of time to get on piece finished. Jewellery may cost from Rs 50 - Rs 1500 a set in the market.

We will try to incorporate new form into jewellery during our workshop and try to produce some pure form exploration.

Sceneries & Stationery

Artisans are also involved in making products of less functional use but to reflect the artwork. They use various traditional techniques along with modern tools to make these products faster.

Few of the products which are made in this category are

* Pen-stand
* Wall Hanging
* Clocks
* Beer mug
* Fan
* Trophies

These items are also customised according to the need of the user. A lot of waste is recycled to be used in these products.
UNITS
Name of Owner - Nausheer Ali
Phone - 995440718
Brand Name - Rupali Joint Liability Swavalambi Group (JLSG)
Products Manufactured - Sofa Set, Folding Chair, Arm Chair & Revolving Chair
Year of Setup - 1998 - 3 years of SIRD finance. Craftsman since childhood.
No of Employees - 4 family members
Current turnover - 3 lakh
Material used - Cane & Bamboo
Machines or Hand tools - Gas heating torch, Hand machine drill, Cutting machine
Point of Sales - From home.
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - Delhi- Pragathi Maidan, Kolkata, KVIC & DRDA sponsor.

Name of Owner - Delwar Haque
Phone - 967809756
Brand Name - 2 Member Group - Home craft centre
Products Manufactured - Pen stand, Lamp shade, Candle stand, Agarbatti Stand, Bamboo mats & Clocks
Year of Setup - 1998
No of Employees - 4-5
Current turnover - 2.5 Lakhs
Material used - Cane and Bamboo
Machines or Hand tools - Gas heating torch, Hand machine drill, Cutting machine
Point of Sales - From home.
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - Delhi- Pragathi Maidan, Kolkata, KVIC & DRDA sponsor.
Name of Owner - Sohrab Ali (National Award winner for crafts)

Phone - 9957014721

Brand Name - Bhai Bhai - JLSG

Products Manufactured - Sofa, Bed, Dinning Furniture

Year of Setup - 2009

No of Employees - 6-7 members

Current turnover - 5 lakh

Material used - Bamboo & Cane

Machines or Hand tools - Hand Tools

Point of Sales - From Home & Trade fair

Current Marketing Method - Business man gives order to the unit for production.

Trade Fair - International Trade fair - Kolkata & New Delhi - Pragathi Maidan

Name of Owner - Abdul Aziz - (Common Facility Center - Incharge)

Phone - 9954624608

Brand Name - Zun Bhai - JLSG

Products Manufactured - Sofa, Tray, Magazine holder, Chair, Triangular Chair

Year of Setup - 2012

No of Employees - 25 members

Current turnover - Above 10 lakhs

Material used - Bamboo & Cane

Machines or Hand tools - Cutting, Boring, Slicing, Lathe

Point of Sales - From CFC & Trade fair

Current Marketing Method - Business man gives order to the unit for production.

Trade Fair - DRDA - District Rural Development Agency, KAPAT, Shanghai Trade fair Participant, Best Award for craftsman in Rai Barely Trade Fair.
Name of Owner - Soyed Ali
Phone - 95086 24895
Brand Name - 2 Member Group
Products Manufactured - Jewellery & Ornaments - Master Craftsman
Year of Setup - 2012
No of Employees - 4 Members
Current turnover - 2.5 Lakh
Material used - Cane & Bamboo
Machines or Hand tools - Hand Tools, Very detailed work with simple tools & Technique
Point of Sales - From home and Trade Fair
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - Delhi & Calcutta

Name of Owner - Mukssad Ali
Phone - 99543 50197
Brand Name - Individual - Sponsored - SIRD
Products Manufactured - Sofa, Chair, Table - Furniture
Year of Setup - 2003
No of Employees - 6 members
Current turnover - 3 Lakhs
Material used - Bamboo & Cane
Machines or Hand tools - Hand tools & Machines at CFC
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - NO
Name of Owner - Jiyarul Haque
Phone - 9678841992
Brand Name - Chandrama - JLSG
Products Manufactured - Trays
Year of Setup - 2011
No of Employees - 5
Current turnover - 2.5 Lakh
Material used - Bamboo & Cane
Machines or Hand tools - Hand tools
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - NO

Name of Owner - Jamir Ali
Phone - 9678059935
Brand Name - Nirja JLSG
Products Manufactured - Furniture Items - Sofa, Bed, Dinning set, Triangular Chair
Year of Setup - 2010
No of Employees - 4
Current turnover - 2 Lakhs
Material used - Bamboo & Cane
Machines or Hand tools - Hand Tools
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - No
Name of Owner - Rahmat Ali
Phone - 9957593300
Brand Name - Naboday JLSG
Products Manufactured - All products on order
Year of Setup - 2010
No of Employees - 4
Current turnover - 4 Lakh
Material used - Cane & Bamboo
Machines or Hand tools - Hand tools
Point of Sales - Home, Market & Trade Fair
Current Marketing Method - Business man gives order to the unit for production & Directly sell to Market
Trade Fair - Banaras, Bangalore, Delhi, Bhopal, Chennai

Name of Owner - Jarina Khathun
Phone - 9957589395
Brand Name - Rimjim JLSG
Products Manufactured - Fruit Trays
Year of Setup - 2010
No of Employees - 4
Current turnover - 2 Lakhs
Material used - Bamboo, Cane & Wood
Machines or Hand tools - Hand tools
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - No
Name of Owner - Mainuddin
Phone - 9678882486
Brand Name - 2 member group
Products Manufactured - Fruit Basket and Pan Bhatta
Year of Setup - 2012
No of Employees - 3
Current turnover - 1.5 lakh
Material used - Bamboo, Cane & Wood
Machines or Hand tools - Hand tools
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - No

Name of Owner - Salma Khatun
Phone - 9954714721
Brand Name - 2 member group
Products Manufactured - Bangles, Bamboo hair Clips, Pen stand
Year of Setup - 2012
No of Employees - 5
Current turnover - 2.5 lakh
Material used - Bamboo & Cane
Machines or Hand tools - Hand tools
Point of Sales - Home
Current Marketing Method Business man gives order to the unit for production.
Trade Fair - No
Name of Owner - Jahida Khatun
Phone - 78961 80406
Brand Name - GyanJyoti JLSG
Products Manufactured - Tray & Three corner Bamboo Chair
Year of Setup - 2011
No of Employees - 5
Current turnover - 2 Lakhs
Material used - Bamboo & Cane
Machines or Hand tools - Hand tools
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - No

Name of Owner - Jamalludin
Phone - 9678882411
Brand Name - 2 Member Group
Products Manufactured - All Except furniture
Year of Setup - 2012
No of Employees - 4
Current turnover - 3 Lakh
Material used - Cane & Bamboo
Machines or Hand tools - Hand tools
Point of Sales - Home & Direct to Market
Current Marketing Method - Business man gives order to the unit for production. They procure products from different Artisans
Trade Fair - No
Name of Owner - Abdul Khaddus
Phone - 9957987485
Brand Name - Individual - SIRD - 40,000 subsidy over 1 lakh loan
Products Manufactured - Scenery with animals & plants - Rs 20
Year of Setup - 2013
No of Employees - 2
Current turnover - 1.5 Lakh
Material used - Bamboo & Cane
Machines or Hand tools - Hand Tools
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - No

Name of Owner - Mograb Ali
Phone - 9678786816
Brand Name - Nabjeeban JLSG
Products Manufactured - Tray - Rs 150, Light Stand, Bamboo Stand
Year of Setup - 2011
No of Employees - 4
Current turnover - 2 Lakhs
Material used - Bamboo & Cane
Machines or Hand tools - Hand Tools
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - No

- Light fixture structure
- Magazine Holder
- Fruit Tray
- Precision cutting of hole in bamboo
- Flower vase
Name of Owner - Nurul Amin
Phone - 9854389388
Brand Name - Beki Beli JLSG
Products Manufactured - Magazine stand, Wall Hanging, Light fitting
Year of Setup - 2011
No of Employees - 9-8 members
Current turnover - 4 Lakhs
Material used - Bamboo, Cane & Wood
Machines or Hand tools - Hand Tools
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - Delhi, Culcutta, Bombay, Pune, Chennai

Name of Owner - Rakibul Islam
Phone - 8011222637
Brand Name - Pariyal Kalyan JLSG
Products Manufactured - Pineapple Flower vase - 30, Flower vase - 25
Year of Setup - 2009
No of Employees - 4
Current turnover - 1.3 Lakhs
Material used - Bamboo & Cane
Machines or Hand tools - Hand tools
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - No
Name of Owner - Moinal Haque
Phone - 9957851607
Brand Name - Dulhan JLSG
Products Manufactured - Lamp - 60, Flower vase - 30-35, Fruit Basket - 10-15
Year of Setup - 2011
No of Employees - 5
Current turnover - 1.5 Lakh
Material used - Bamboo & Cane
Machines or Hand tools - Hand Tools
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - No

Name of Owner - Anwar Hussain
Phone - 7896937644
Brand Name - Two Member Group - SIRD sponsored
Products Manufactured - Pen Stand - 30, Fruit Basket - 20, Card Holder - 30
Year of Setup - 2013
No of Employees - 4
Current turnover - 2 Lakhs
Material used - Cane & Bamboo
Machines or Hand tools - Hand tools
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - No

Office Stationary
Splitting of Bamboo
Peeling of Bamboo layer
Name of Owner - Hashmat Ali
Phone - 9678147739
Brand Name - Periyal Kalyan JLSG
Products Manufactured - Fruit Basket - 15, Fruit Basket Big - 40, Wall Scenery - 25
Year of Setup - 2012
No of Employees - 5
Current turnover - 2.5 Lakhs
Material used - Bamboo & Cane
Machines or Hand tools - Hand Tools
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - No

Name of Owner - Gulnur Khathun
Phone - 7896937644
Brand Name - 2 Member Group - SIRD sponsored
Products Manufactured - Pen stand - 25, mobile stand - 30, Date house - 25
Year of Setup - 2013
No of Employees - 6
Current turnover - 1.5 Lakh
Material used - Cane & Bamboo
Machines or Hand tools - Hand Tools
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - No
Name of Owner - Rumila Khathun & Firoza Khathun
Phone - 8011500117
Brand Name - 2 Member Group
Products Manufactured - Light with Stand - Rs 1500, Small Light - Rs 750
Year of Setup - 2013
No of Employees - 5
Current turnover - 2.5 Lakh
Material used - Cane & Bamboo
Machines or Hand tools - Hand Tools
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - No

Name of Owner - Gulzar Hussain
Phone - 9954030586
Brand Name - Samaj Kalyan JLSG
Products Manufactured - Key Holder - 20, Magazine - 40, Wall Hanging - 45
Year of Setup - 2009
No of Employees - 5
Current turnover - 3 lakh
Material used - Cane & Bamboo
Machines or Hand tools - Hand Tools
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - No
Name of Owner - Runalaka Aktara & Murriam Begum

Phone - 9957507495

Brand Name - Two Member Group - SIIDC sponsored

Products Manufactured - Key Holder - 20, Magazine - 40, Wall Hanging - 45

Year of Setup - 2013

No of Employees - 4

Current turnover - 2 Lakhs

Material used - Cane & Bamboo

Machines or Hand tools - Hand Tools

Point of Sales - Home

Current Marketing Method - Business man gives order to the unit for production.

Trade Fair - No

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Name of Owner - Shahjahan & Mubarak Ali

Phone - 9954240392

Brand Name - 2 Member Group

Products Manufactured - Lamp Hanging - 300, Scenery - 70, Hanging Lamp - 200

Year of Setup - 2013

No of Employees - 5

Current turnover - 2.5 Lakhs

Material used - Cane & Bamboo

Machines or Hand tools - Hand Tools

Point of Sales - Home

Current Marketing Method - Business man gives order to the unit for production.

Trade Fair - No
Name of Owner - Ruhima Khathun & Munvara Khathun
Phone - 8011660110
Brand Name - 2 Member Group - SIRD
Products Manufactured - Hanging Lamp - 300, Penstand - 25, Scenery - 70, Key ring - 20
Year of Setup - 2013
No of Employees - 5
Current turnover - 2.5 Lakh
Material used - Cane & Bamboo
Machines or Hand tools - Hand Tools
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.

Name of Owner - Saymana Khathun
Phone - 8011222637
Brand Name - 2 Members Group - SIRD - Sponsored
Products Manufactured - Pineapple Vase - 30, Mobile Stand - 25
Year of Setup - 2013
No of Employees - 5
Current turnover - 1.5 Lakh
Material used - Cane & Bamboo
Machines or Hand tools - Hand Tools
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.

Name of Owner - Abdul Hai
Phone - 8011500118
Brand Name - Nabojeerah JLSG
Products Manufactured - Magazine Stand - 70, Scenery - 40
Year of Setup - 2009
No of Employees - 4
Current turnover - 2 Lakh
Material used - Cane & Bamboo
Machines or Hand tools - Hand Tools
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - No

Name of Owner - Gulnur Khathun
Phone - 7896937644
Brand Name - 2 Member Group - SIRD sponsored
Products Manufactured - Pen stand - 25, mobile stand - 30, Date house - 25
Year of Setup - 2013
No of Employees - 6
Current turnover - 1.5 Lakh
Material used - Cane & Bamboo
Machines or Hand tools - Hand Tools
Point of Sales - Home
Current Marketing Method - Business man gives order to the unit for production.
Trade Fair - No

Oppurtunity Areas for Design Intervention
The cluster manufactures diverse products with the help of bamboo as a whole or using it in parts. Most of the products contain just bamboo as the material.

Product design of the products manufactured by the cluster is rather traditional and concentrates more on quantity than variation in the design or customisation according to the user.

**Issues**
As specific products require specific part of the bamboo stem, the rest usually goes as wastage, which can be used as making raw material for new products.

As a cluster still the units are not working together, there can be a system these units can work together to use each other's strength.

**Opportunity**
A study into possible market will help them to create new product with the superior hand skills they have for the craft.

I do not find a lot of product detail issues with the products, but with the use of better tools they can definitely be improved.

Use of machines will definitely boost the production power but will then lose the livelihood of other artisans if they don't catch up with the technology.

**Technology, modernization and collaboration**

**Current Tools**

- **Electric Drill**
- **Manual Axo**
- **Manual Drill**
- **Gas Blowtorch**
- **Manual Bamboo Splitter**

Currently there are various machineries that are used by the used by the artisans for producing the products. They are using mechanised hand tools as well as non-mechanised ones. The mechanised hand tools give a huge assistance to the artisans over the non-mechanised ones. The work get done faster and in a neater way. Still there are many common techniques which the artisans find really difficult to carry out like, Bamboo Bending, Using different layers of Bamboo for different purposes.

**Issues**
The above machines are hand and comfortable to use in small production. These can give very accurate quality and finishing of the products. This are also been used in various Common facility centre and some industries. For these above machine the maintenance centre are also available in towns. So most of the centre close by towns has it. But still the individual artisan would not like to use due to handling, cost and maintenance factor.

**Opportunity**
As we can see the market for finished goods are increasing, it would be really productive to have heavy machinery to do the repetitive job. Which in turn will give high yield to the cluster. There are various machines available for doing heavy duty jobs in the market or can be imported from other countries. As the production increases there will be a need to increase the variety of designs of the products. Few of the commonly available machines which can be sourced are:

- Bamboo Cross Cutting Machine
- Knots removing & edge Planning machine
- Bamboo Splitting Machine
- Bamboo –Wool Shaper Forming Machine
- Bamboo sticks Length setting Machine
- Multifunctional Cutter Sharpener

**Product Design, redesign, Product Development**

- **Lounge seating**
- **Lamp shade & Center table**
Research
Bamboo can be seen as a substitute for wood, since it grows faster and lends itself to easy agricultural approaches in many different climates and in this manner it can prevent the scarce natural source of wood from being depleted. Apart from this, bamboo growth can also result in healing degraded land, stopping soil erosion and helping in drought-proofing. It has an underground root-and-rhizome system that effectively binds the top one foot soil that is critical for soil health. Bamboo is a critical element in maintaining the balance of oxygen and carbon dioxide. Carbon gets trapped within bamboo forests, thus reducing carbon dioxide gases. It also lowers the intensity of light and protects us from harmful ultra-violet rays.

Future Initiatives
As a Bamboo rich country, we should be promoting bamboo in various horizons. Bamboo craft with its unique traditions opens up new possibilities in 'design expression' with woven forms. India has 13 million Bamboo Craft persons all over the country with ranging skills. Most of them earn very little from the practice of craft, often abandoning the profession. There is vast scope of reposition bamboo craft by 'design' to reach urban and export markets thereby increasing the earnings of village craft persons. We should look into incorporating various traditional values associated with bamboo like medicinal and structural use of the material. We need to also look into diversifying the products so as to get hold of export market.

Issues
The real concerns are the education and awareness of artisan. The basic facility like transportation and electricity is also required for any development. All this big design and experiment centre are situated in city but actually place is in rural and remote area. The areas are so remote that there are not even public transports in some region. The artisan must be given proper training as well there should be assurance of continues work. Generally the training is provided but there no work organized or continues work provided after training. So due to discontinuity of training and work the artisan loose skill and shift back to same.

Innovation in Process and Related Areas for Design Intervention

- Raw Material
- Primary Process
  - Drilling holes
  - Chemical Treatment
  - Peeling Skin
  - Knot Removing
- Secondary Process
  - Straightening Culm
  - Sawing
  - Splitting
  - Bending
  - Jointing and Binding
- Finishing
  - Filling
  - Sanding
  - Painting

Innovation in Production Process
Production process is one of the most vital part of the design process as things comes into being, and is directly put into the market hence forth. Optimization of the production process also determines the amount of profit gained by the product in the market. With the unique qualities of bamboo it is very essential to innovate in each of the process so as to reap maximum benefit.

Issues
As the artisans are unaware of the recent developments in technology and process of developing there products and achieving a greater output and profit. Better education to the artisans and the coming generations will be able to solve the issues. Lack of investment individually into the high cost of setting up the production process also is a huge issue, which can only be tackled by community involvement.

Opportunity
The plenty of product could be designed. So this we have to innovate proper design intervention process for products. As the artisan stays in remote and rural areas and not aware. The various modern tools need to be introduced and artisan also have to be trained to handle the machine. Which can make production easy with less labour. The quality can be controlled easily and the good finished product can be also produced easily.

Innovation in Design Process
Innovation in the design process is highly essential for the cluster to diversify its product range and to diversify the market hold. As the products and its uses are very limited in nature they are not able to capture other market and the competition increases within the cluster, which in turn leads to poor manufacturing quality. Improvement or Innovation in design process will ensure that there are new products which are churned out of the cluster very frequently and can understand the need of the user that they are targeting and can produce the products based on there need.
Workstation & Tooling Design

Workstation Design
Workstation is one of the most sacred places for artisans and they spend most of the time in their workspace. It is essential that the workstation is well-equipped and safe for the artisans to work. As the modern equipment and the number of people working at a particular space have increased, it induces a different kind of problem of design the workspace professionally for such artisans which will ensure better production and safety.

Issues
The workers working in the workstation faces various problems. There are different types of problems like no proper ventilation, electricity problems, lack of proper light and in maximum cases less space creates a great problem. Some of the facilities like drinking water facilities, recreation, refreshment, and sanitation facilities must be provided for better production.

Opportunity
A better work space will ensure a better productivity and safety of the artisans. Many of the work related ailments can be rectified by better work space design. As the modern machines are taking over the tool design, the workstation needs to be designed according to the new system of working to maximise production and safety.

Tooling Design
Tooling has become synonymous for customising as it allows you to produce a product which is different from others in the market a much higher rate. Tooling design involves high cost and investment as well as vision of future as the cost can only be recovered by the investor if the end product does well. A overall system thinking approach is required for investing in tooling. Low investment tooling can also be done for some particular process or product, which will ensure that the revenue is generated much faster with investment.

Market and competition study for design advantage and distinction

Wrong posture of sitting for long hours of work

No ventilation and poor lighting, very cluttered workspace

Poor management of raw material

Market diversification will be the biggest challenge the cluster development agencies are going to face in the future.

Issues
The products that the cluster is developing has been around in the market and trade fairs since ages and fetch really low as profit margin as the middleman does all the business of the products.

The artisans can get direct contact with the market with the help of rural development agencies for getting better profit and market feedback for further product development.

There is a huge amount of market based product development input required. They hardly understand market and the requirement of diversification product with time. This is probably because of the little recognition of the organisation and the lack of promotion. Combined with the general fact that bamboo is seen as poor people's material and the constant threat of competitive cheaper local wooden and plastic products and the bamboo furniture out of China, it can be said that the bamboo-market is not an easy one.

Most sales (approximately 90%), carried out the last two years, are orders done by the hotel, restaurant and guesthouse sector.

Opportunities
The competition exists not in terms of design or superior quality of craftsmanship, but how cheap and fast one can make these products.

Superior finish can help in capturing the niche markets for the same product range.

Branding
A strong brand name can be developed for the cluster associated with the quality products that can be made. A brand name will give a very strong presence in market along with the quality associated with its production. Brand will also attract the investors and governing bodies to invest in their development.

Product Development & Diversification
There should be often market research to be done and the product must be designed and develop looking at the parameters like product, need, intensity and price point gathered from market.
Workers Training and Skill Up-Gradation

The artisans are highly skilled in producing the same set of products repeatedly. As we are looking into introducing a range of products, it is very important that they understand the possibility and use of skill upgradation. Most of the knowledge received by the artisans are passed from generation to generation and has its own down point due to lack of evolution in the products according to the market need.

Issues
The artisans are not educated enough to understand the modern training flow. There is no intensive training provided. With intensive training they must also know about the basic mechanism of machineries than only operating. Directly very upgraded machine are introduced , it could have done in two segments, the first step would have been upgradation of the existing tool which can be more aesthetic and then introduction of hi tech machines. Most of these equipment run on electricity. Since the areas are under developed and shortage of electricity they must have alternate resource of electricity energy using natural and local resources. There is no regular mechanics for maintenance of the machines. If it breaks down it remains for years.

Opportunities
There should be a common training centre which should function round the year .The centre must have few basic departments to impart training to the artisan. The department's are- design and product development, technical and machineries especially and of course marketing. There must be regular training and upgradation programme time to time. There must be regular technical person must be appointed in centre to maintain the machine and support the artisan. Must be good resource of power should be organised as all machines runs on power.

Ergonomic and Environment factors

As the product range , furniture is one in which a lot of consideration need to be put into ergonomics. Furniture are made according to the engineering point of view and keeping in mind some pints of aesthetics.

Furniture are not made according to different context, as these context would govern the ergonomic principles of the furniture.

Different age groups need to be addressed and product line should cater to all age groups ergonomically.

Lighting products also need to be designed ergonomically for the kind of affect it has on eyes and vision.

Opportunity
Bamboo (and rattan) furniture is welcomed with open arms. People think it has an appealing and natural look. Bamboo and cane furniture is mostly seen as comfortable furniture to relax and is therefore wanted as outdoor furniture for terrace, garden and lounge rooms. The availability of cushions in seats is found a necessary item. Although traditional designs are still wanted, some up-market restaurants and hotels prefer new design to offer something original to their customers.

Environment factors

Bamboo can be seen as a substitute for wood, since it grows faster and lends itself to easy agricultural approaches in many different climates and in this manner it can prevent the scarce natural source of wood from being depleted. Apart from this, bamboo growth can also results in healing degraded land, stopping soil erosion and helping in drought-proofing. It has an underground root-and-rhizome system that effectively binds the top one foot soil that is critical for soil health. Bamboo is a critical element in maintaining the balance of oxygen and carbon dioxide. Carbon gets trapped within bamboo forests, thus reducing carbon dioxide gases. It also lowers the intensity of light and protects us from harmful ultra-violet rays.
Packaging

Packaging of Bamboo products by artisans is not a common practice unless they are going to sell it in an open market directly to the buyers. The products are made in bulk and transported to the middle man who in turn would brand and pack it to be sold in various markets directly to the buyers. Lack of knowledge of packing and its long term value leads to such a situation. Furniture and other products tend to get damaged due to transportation over long distances as well as storing them for long durations. Packing the products for these conditions will help the products to reach the buyers safely. Bubble wrapping as well as newspaper filling may ensure certain cushion is maintained while transporting, but corrugated sheets can be used for extra protection while storage.

Logistics

There is no proper transportation to transport either raw materials or the ready goods. All short distance transport is done manually and the cluster doesn't have effective transportation facility to move material and products among themselves. The short distance transportation is very labour intensive and requires a lot of care during the same as the damages occur the maximum. Long distance transportation how ever requires less care as usually the middle man takes the responsibility of packing and storing them.

Storage

Storage at unit level is done in every household. Each house has a storing facility which they use to store the finished products as well as the raw material. Due to geographical conditions of heavy rainfall, flood and excessive humidity, the raw material and the finished products need to be taken extra care of during these seasons. With good packaging and seasoned raw material the products can withstand adverse climatic conditions too.

Infrastructure and capability enhancement from design perspective

Infrastructure development becomes essential for any design community to go ahead. The cluster requires a lot of infrastructure development in terms of basic machinery and sophisticated hand tools.

A common facility centre may also help them increase the production quantity.

Other infrastructure like a workshop with proper ergonomic consideration will help increase the production.

Investment of jigs and tools will also help in increase of production and better finished products.

Issues

Artisans have both responsibility agriculture and crafts as well as household activities, so they can’t give much time in bamboo and cane products making. The artisans can work only in the day because they don’t have the electricity. So, when they get little time off they work as their full concentration is agriculture. Apart from all above most of artisan does not have own shop and display space.

Road and electricity have been recently introduced into the village and due to geographical condition the space is very much prone to natural calamities like flood.

Opportunities

Common facility centre with modern machineries can be put up in the cluster with proper training initiatives to the artisans with workshops as well as knowledge sharing with in the cluster. Common facility may also be a self sustained model with artisans contributing to its maintenance and development.

A common retail center can also be opened in the city/town where artisans can display their products and sell it directly to the buyers.
Exhibition/Display Design Opportunities

Exhibition or trade fare can be a great opportunity to attract new buyers as well as business houses towards your product.

Issues
Artisans sell directly from their house or small shops so display is not given much of an importance. They do not have proper workplace, so it’s really impossible for visualizing a store or display unit.

Opportunities
Display centres and showroom can be established for displaying the items at the cluster level that can also function as the local design centre as well as sales address. There is proves that shows the display or exhibition design has supported the growth of sales revenue. This is the reason the brands spends money on displaying the items. Display have power to attract costumers towards the product. Here are some pictures below of some national and international exhibition Display.

Visual Identity and Branding from Communication Design Point of View

Even many brands with handmade products made its strong base in the market and also idea of having visual identity and branding for the Handicraft products are well accepted globally. Still not much awareness change can be seen in cluster or importance of it.

Issues
Branding for the handicraft product is not at all practised even in small entrepreneurs in the clusters. No tagging , product codification proper marking and labelling of the product is done or practiced. I suggest with every package a clear front view picture of the product and product code of the design must be stuck.

Opportunities
Bandung of the product can be done but in the certain limit. It is quite viable for the small established entrepreneurs by educating them and providing support. But for individual artisans it is not really a easy as there are lot of obligation like not understanding about branding , have direct marketing skills.

Inter Cluster Communication

There is no not much inter communication happens in cluster. Due to nuclear production system. Most of them produce common and same age old or old designed products.

Issues
The products are not practiced professionally and there is no regular and consistent demand of the product. So generally the complete process is done by single artisan or family.

Opportunities
To develop the inter communication, we have to develop work. If , there will be enough and consistent work. There could be production system could develop grouping the artisans as per skill strength. Which will develop inter cluster communication and also the production will be efficient.

To improve the process of manufacturing and productivity

Issues
There is no standard set of process of manufacturing product not the artisan have given thought to enhance the productivity. Most of the production done under traditional process and techniques. This is labour intensive and time taking. Also hard to maintain the quality and the finishing of the products.

Opportunities
There should be efficient production process must developed step wise right from the processing of raw materials to end products. The updated tools must be introduced in the cluster to enhance the production and quality. There should be intensive training given to artisans about the modern equipment. There should be manual machines must be developed as there is power shortage in cluster. The maintenance and technical understanding of machine must be taught to sequence of operations.
Report of
Design Clinics Workshop
of Design Awareness Programme
for Barpeta Bamboo Cluster under Design Clinic Scheme

December 18-22, 2014

Organised by - State Institute of Rural Development (SIRD), Assam

Submitted by:
Binu Bhaskaran, Furniture Designer
Introduction

The needs assessment survey conducted in the month of September was followed by a fruitful five day workshop in December 2014. The workshop had representatives from artisans & craftsmen from Barpeta district. Workshop was held at SIRD, Guwahati. Discussions related to various issues, concerns and opportunities identified during the need assessment survey were addressed during the workshop. The workshop was conducted for five days with each day having a definite schedule and plan. As the duration of the workshop was only five days, a limited variety of products were developed. The artisans participating in the workshop were from different villages and had the required skill set in bamboo and cane craft. A number of bamboo products ranging from lifestyle to utility were conceptualized and prototyped.

Existing Situation

As part of the project, need assessment survey was done in Barpeta Bamboo Cluster. The following were observations which led to the need for a design intervention workshop.

1. As specific products require specific part of bamboo stem, the rest usually goes as wastage, which can be used as making raw material for new products.
2. The machines are hand driven and comfortable to use in small production. These can give very accurate quality and finishing of the products.
3. The artisans are not educated enough to understand the modern training flow. There is no intensive training provided. With intensive training they must also know about the basic mechanism of machineries than only operating.
4. The existing product ideas are outdated as they based on mythology or local ceremonies only, which is not appealing to the urban market.
5. To bring this great heritage out of distress, design intervention in form of new, fresh ideas for contemporary market was required.
Existing Products

Objective of Workshop

1) New product range and variety: The existing products made by master crafts persons are conventional and based on local themes, hence outdated for the urban market. The need assessment survey brought out the urgent requirement of product diversification through the design intervention workshop.

2) Simple techniques: Since not all the participants in the workshop were as skilled as the master crafts persons it was important to introduce simple methods to develop many products.

3) Technique of innovation: Craftsmen were given the input of developing their own range of products.

4) Reusing the waste: They had to be sensitised to the concept of reusing the waste. They produce a lot of waste which is used for non-production purposes.

5) Better Manufacturing Techniques: Educating them on better manufacturing techniques which will increase the production as well as quality of the product.
### List of Participants

<table>
<thead>
<tr>
<th>SNo</th>
<th>Name</th>
<th>Village</th>
<th>Contact</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Sayed Ali</td>
<td>Bolabhita</td>
<td>9508624895</td>
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<td>Eddis AG</td>
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<td>3</td>
<td>Manireal Hosale</td>
<td>Barpeta</td>
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<td>4</td>
<td>Tamez Ali</td>
<td>Braluki</td>
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<td>Abdur Rezzak</td>
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<td>Mahibul Islam</td>
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<td>Sohrab Ali</td>
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<td>8</td>
<td>Naseer Ali</td>
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<td>Alal Uddin</td>
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<td>Motiyan Rehman</td>
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<td>Abul Hoque</td>
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<td>Abdul Kaddus</td>
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<td>26</td>
<td>Mahar Ali</td>
<td>Raypur</td>
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### Day-wise Activity
**Workshop Schedule**

<table>
<thead>
<tr>
<th>DATE</th>
<th>TIME</th>
<th>TOPIC</th>
<th>RESOURCE PERSON</th>
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<tbody>
<tr>
<td>1st</td>
<td>11.00 AM-11.30 AM</td>
<td>Registration/ Inauguration</td>
<td>NGO Member</td>
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<tr>
<td></td>
<td>12.00 NOON-12.30 PM</td>
<td>Introduction</td>
<td></td>
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<tr>
<td></td>
<td>12.30 PM -1.30 PM</td>
<td>Introduced to new design development product</td>
<td>Design consultant- Binu Bhaskaran</td>
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<tr>
<td></td>
<td>Lunch</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Concept &amp; Product Development</td>
<td></td>
<td>Design consultant- Binu Bhaskaran</td>
</tr>
<tr>
<td>2nd</td>
<td>10.00 AM-1.00 PM</td>
<td>Product Development</td>
<td>Design consultant- Binu Bhaskaran</td>
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<td>Lunch</td>
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<tr>
<td></td>
<td>1.30 PM -3.30 PM</td>
<td>Product Development</td>
<td>Design consultant- Binu Bhaskaran</td>
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<tr>
<td></td>
<td>Introduce modern tool &amp; equipment which is required development of the product</td>
<td>Local DIF / NGO</td>
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<tr>
<td>3rd</td>
<td>1.00 PM-1.30 PM</td>
<td>Lunch</td>
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<tr>
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<td>1.30 PM - 3.30 PM</td>
<td>Product Development</td>
<td>Design consultant- Binu Bhaskaran</td>
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<tr>
<td>4th</td>
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<td>1.30 PM - 3.30 PM</td>
<td>Guest Designer</td>
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<td>5th</td>
<td>10.00 AM-1.00 PM</td>
<td>Lunch</td>
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<td>1.30 PM - 3.30 PM</td>
<td>Evaluation of training programme Product display. Discussions on successful local enterprise of entrepreneurs of wood and bamboo</td>
<td>Design consultant- Binu Bhaskaran</td>
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Day 1

Introduction to MSME scheme by the team of SIRD, Guwahati Office. A brief address was made about the workshop and the way ahead by the SIRD & Arpit Agrawal (Design Expert). The issues and concerns related to bamboo products were discussed. A lot of new product ideas were also discussed through a one on one interaction with the artisans. It was important to have the participation of the artisans in the design process and get their ideas and feedback about new design ideas and the existing product range before the conceptualization of new products. The prototyping of the new products started from day one.
Day 2

The day started with the idea of conceptualising new products. The artisans where asked to sit in groups and discuss different kind of products they would like to develop according to their skill sets. After new products were talked about with different context like urban market, kids products, office stationery etc. They were asked to sketch down their ideas and they all could manage to do a bit of sketching. Later they started to prototype the ones they had sketched.

Day 3

The day started with the visit and lecture of Rajib Kumar Kalitha, Scientist from Rain Forest Research Institute, Jorhat, Assam. They gave fresh perspective to artisans of growing and harvesting Bamboo with less input cost and larger output. They also gave them different contacts to procure good bamboo. Later the artisans started working on their individual products. They were asked to make the products strictly as they had sketched, but very few were able to do that.
Day 4

The day started with the visit and lecture of Pahi Mahanta, Designer, Ministry of Textile, Assam. She spoke about export market of the products. She made artisans aware about different requirements like quality, durability, finish, target market for the export purpose. Later artisans started to finish their first prototype and start their second round of products.

Day 5

The last day of the workshop was filled with activity as the artisans get to finalise the product for the exhibition. Every artisan had tried to finish two prototypes in 5 days. They had worked on different forms as well as artistic output of the product. After the group photo and the exhibition photo on the final day we gathered again for a final discussion. I appreciated the fact that the output of the workshop was really impressive and they also thought that considerable amount of knowledge has been transferred both ways.
Product Development Sketches by Artisans
Product Development

Sofa - 3 seater

Produced the sofa with half the amount of material than traditionally made sofas. Ergonomics and details were altered.
Flower Stand

Wall Hanging

Necklace
Fruit Basket

Hanging Flower

Lamp Shade
Jewelry

Final Products
Binu Bhaskaran

DAP Report

Barpeta Bamboo Cluster

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DAP Report

Barpeta Bamboo Cluster

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Product List

- Three seater sofa
- Dining Table
- Flower side stand - 1
- Flower side stand - 2
- Mobile holder
- Stationery holder
- Pencil & Pen Stand
- Elephant head wall hanging
- Human head wall hanging
- Buffalo head wall hanging
- Bangle & jewellery stand
- Table coffee tray - 1
- Table coffee tray - 2
- Table coffee tray - 3
- Table lamp
- Hanging Lantern lamp
- Scenery wall hanging - 1
- Scenery wall hanging - 2
- Scenery wall hanging - 3
- Fruit Basket - 1
- Fruit Basket - 2
- Fruit Basket - 3
- Necklace
- Ear Rings
- Hanging flower stand

Outcome & Conclusion

The five day workshop gave a valuable understanding about the cluster and skill sets of the artisans. At the end of the workshop we were able to come up with lot of prototypes which were satisfactory. The artisans were excited about new designs and were ready to explore their production in the near future.

Some of the artisans who were reluctant to pursue new ideas were now excited about its new possibilities. The product diversification ideas using simple technique to develop lighting, scenery & decorative products were well accepted among the artisans.

A lot of bamboo products were developed such as trays, life style products, etc. The quality of these products was good but can be finished better and the joinery could be explored. The varnishing technique of the bamboo products using a brush is not a good idea. Using a brush does not allow uniform application of the varnish, thus making it look tacky. A spray gun for applying varnish was suggested.

- Organising the individual artisans into groups or clusters.
- Providing a work space with the basic amenities like furniture, good lighting and ergonomically seating.
- Working with good quality raw material
- Design development workshops to be conducted to provide a wider range of products
- Proper systems for costing need to be put in place
- Branding & packaging need to be provided for the products developed
- Developing market linkages
- Ongoing design development trainings along with awareness programs about the art should be provided.