

**NATIONAL CENTRE FOR DESIGN & PRODUCT  
DEVELOPMENT**

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**NOTICE INVITING EXPRESSION OF INTEREST FOR  
ESTABLISHING COMMON FACILITY CENTRES FOR  
PROCESSING AND VALUE ADDITION IN BAREILLY MEGA  
CLUSTER SCHEME OF MINISTRY OF TEXTILES GOVT. OF  
INDIA IN BAREILLY, U.P**

NCDPD invites offers from interested and eligible agencies for setting up of Common Facility Centres with an objective to upscale and improve the production process of identified crafts. The other objective includes faster and quality production for value addition and increasing income level of the artisans.

Interested agencies having relevant experience may submit their EOI. The detailed TOR for the same can be downloaded from the website [www.ncdpd.in](http://www.ncdpd.in) or [www.handicrafts.nic.in](http://www.handicrafts.nic.in) or can be obtained from the office of NCDPD or the Regional office of DC (Handicrafts) at Regional office of DC (Handicrafts) at 2<sup>nd</sup> Floor, Nirman Jyoti, CGO Complex, C-18, Deen Dayal Puram, Bareilly (UP)-243 122. The last date for submission of EOI shall be within 15 days from the publication of this advertisement.

# 1. BACKGROUND

Hon'ble Minister of Finance in his budget speech 2014-15 announced Bareilly as the new mega cluster with an objective of inclusive development of crafts in the clusters of Bareilly in Uttar Pradesh. The guiding principle underlying the design of clusters would be to create modern infrastructure and to integrate the production chain in a manner that caters requirement of the handicraft artisans in the Clusters.

In brief, the main objective of setting up this cluster is to assist the stakeholders in availing the facilities set up with modern infrastructure, latest technology, design innovations and adequate training and Human Resource Development (HRD) inputs along with appropriate market linkages.

A quick justification study and DPR for interventions to be proposed have been undertaken by NCDPD & O/o. DC (Handicrafts). Based on the Recommendations of the report of Diagnostic-cum-Justification study for the proposed interventions in the Bareilly Mega Cluster, technical-cum-marketing team visited different units, artisans, SHGs, manufacturing units at Block level in different clusters of Bareilly for technical understanding of the proposed interventions and their feasibility. The clusters / crafts includes in the initial phases depending upon the immediate requirements are below:

- **ZARI & ZARDOZI CRAFTS**
- **BAMBOO AND CANE CRAFTS**
- **TERRACOTTA CRAFT (POTTERY)**

## 1. ZARI AND ZARDOZI CRAFTS

### 1.1 WORKING PROCESS

The pattern of the design to be woven is drawn on paper and then transferred on the cotton yarn with the help of tilli through the warp and weft grid known as jala, which contains the total graphic pattern. This jala is hung from top of the loom and tied to the warp threads only the controlled warp threads are lifted as per the design. Extra weft threads of zari/ silk are inserted in the raised portions, row by row, along with the running weft thread. Jala device has been replaced by the punched cardson, the jacquard looms for these brocade decorations. Gyasari the Tibetan woven offerings are very closely woven. Apart from the silk/zari thread peacock feathers are used in a satin weave to produce an entire surface of the feathers. The motifs are woven on dark red, yellow, blue and white satin ground with use of gold and silver zari.

## 1.2 BASIC TOOLS BEING UTILIZED BY ZARI ARTISANS

**Adda (Wooden Frame)**: It is a wooden adjustable frame consisting of four wooden bars.

**Aari (Needle)**: Needle is the main tool in the Zardozi embroidery. It has a hook at the tip and wooden handle at the back.

## 1.3 MAJOR BOTTLENECKS / CONSTRAINTS

The major constraints observed are as follows:

- The workplace of the Zari artisans is not conducive to production. Improper light, insufficient working space, insufficient storage space for raw material and finished products are major constraints in production. The artisans follow old and traditional means of production leading to low productivity and quality.
- Improper tools leading to low level of productivity, quality concerns and long-term health issues
- Design Inputs are not competitive in respect of global market as the artisans do not have access to the design development facilities.
- Low level of skill and awareness to move into higher level of value realization

## 1.4 PROPOSED INTERVENTIONS

In order to address the identified constraints there is an urgent need to set up small and captive **Common Facility Centres** at different block levels where there is a production clusters and can be used by the artisans, master craft persons, SHGs, NGOs or other beneficiaries. These CFCs, shall be set up with the technical expertise of SPV and as per the specified terms and conditions. The proposed CFCs shall have following facilities:

### i) **IMPROVED ADDA (TOOLS)**

**Objective:** The objective is to improve the existing frames in a manner that it facilitates improved productivity in embroidery work.

As mentioned earlier, the embroidery work in the existing frames requires relatively higher amount of time investment and thus hampers productivity. In order to overcome this it is proposed to develop a frame which can hold the cloths securely in a continuous process and is user friendly.

#### **Deliverables:**

- Design of improved adda
- Identification of Artisans
- Distribution of Adda

- Linking the artisans to Common Facility Center

A copy of proposed improved Adda (Tools) is also attached at [Annexure I](#).

## ii) **IMPROVEMENT IN THE WORKPLACE**

**Objective:** The intervention is expected to meet twin objectives of

- Improving the workspace
- Provide avenue for higher value addition

As mentioned earlier, the existing workspace is not conducive for such artisanal work and is devoid of infrastructure such as availability of adequate power, lighting, space, etc. This is resulting in low productivity and health concerns.

Also, as mentioned the artisans are engaged in job work and their work is being taken out of the cluster as semi-processed product while the final product is being stitched outside the cluster. Thus only a fraction of the total value is being realized in the cluster. In order to improve the overall value realization in the cluster it is proposed to initiate stitching operations in the cluster as a common facility.

Under this it is proposed to illuminate the working place for better working conditions as the existing practices leading to various diseases such as complete blindness to the Zari workers etc.

## iii) **MACHINES FOR STITCHING, CUTTING, INTERLOCKING FOR IMPROVEMENT OF THE QUALITY**

**Sewing machine:** It is used to stitch pieces of fabric. An automatic way of stitching instead of needles manually and hence provides a finished product.

**Interlock machines:** A special set of stitching machine to impart precision in finishing of products.

**Fabric Cutting machines:** Fabric Cutting machines can enable to cut a set of pieces of cloth at a time. This reduces the time utilized in cutting and hence speed up the production.

**The brochures of above high quality machines are also attached for reference at [Annexure II](#).**

## 1.5 MAJOR IDENTIFIED BLOCKS FOR INTERVENTION

### Zari Work:

1. Hafijganj, Rethora
2. Vankhana, Bakharganj
3. C.B.ganj, Govindpura
4. Partapur
5. Dohra Dohria

## 2) SETTING UP OF COMMON FACILITY CENTRES FOR BAMBOO & CANE – INFRASTRUCTURAL INTERVENTIONS

### 2.1 Bamboo Turning Unit

**Objective:** The objective is to setup production unit by procuring machines and tools related to turning craft. The setup will be utilized by various beneficiaries to start commercial production.

**Scope of work:** Under the above project, setup related to turning craft will be erected and commissioned at various places which can be utilized by the trained youth for enhancing their productivity and quality. At the same time unit will be utilized to start commercial activities by the beneficiary.

The CFC shall have the following facilities:

S. No.	Machine Specification
1.	<b>Turning Lathe</b> Total length of machine – 5 ft. Working distance between centres – 3 ft. With revolving centre – 6” with face plate, with 3 speed pulley, Along with 1 HP single phase Crompton makes elect. Motor, V- Belt, and Starting Switch.

### Turning Tool Kits

Sl. No.	Tools
1	Gauging Chisel (big + small)
2	Skew Chisel (big + small)
3	Parting chisel
4	Square chisel (big + small)
5	Hacksaw for woodwork
6	Hammer
7	Measuring tape (3 mtr)
8	Metal scale ( 12 inches)
9	Small File for sharpening Hacksaw blade
10	Tri square ( 8")
11	Blow lamp
12	Brush 1 inch
13	Combination stone
14	Power operated hand drill (Bosch, Model – GSB 10RE)

#### Deliverables:

- Erection and commissioning of turning unit.

## **2.2 Bamboo Jig Jewellery Unit**

**Objective:**The objective of this Terms of Reference is to empower the trained artisans by providing them a suitable tool kit and Jig saw machine to start production for Bamboo Jewellery products

**Scope of work:** Under the above project, a Jigsaw machine will be installed which can be utilized by the trained youth for enhancing their productivity and quality. At the same time tool kits on individual basis will be distributed to start commercial activities by the beneficiary. The unit shall have following equipments

### Machine components

S. No.	Machine Specification
1.	Jig saw machine (1 hp motor, 24"length, 4"cutting height)
2.	Bench vice (4" inch)
3.	Power operated hand drill (Bosch, Model – GSB 10RE)

### Individual Tool components:

Sl. No.	Tools
1.	Scissor
2.	Nose Pliers
3.	Wire cutter
4.	Paper Cutter
5.	Hack saw
6.	Measuring tape (3 mtr)
7.	Needle with handle
8.	Forceps
9.	Pen drill
10.	Dao

### Deliverables:

- Jig saw installation
- Supply of tool kit for bamboo jewellery making.

## **2.3 Bamboo Furniture Unit**

**Objective:** The objective of this Terms of Reference is to empower the trained artisans by providing them preliminary hand and power tools to start production for Bamboo Furniture products

**Scope of work:** Under the above project, Hand tools and power operated hand tools will be supplied to the furniture unit which can be utilized by the trained youth for enhancing their productivity and quality. The unit shall have following equipment:

### **Hand Tools**

<b>SI no.</b>	<b>Name of Tools</b>
1	Standard Hand Saw
2	Traditional Dao
3	Chisel set (0.25",0.5",0.75",1",1.5")
4	Hammer
5	Blowlamp
6	Sash clamp (5 Ft.)
7	'C' clamp (3"or 4")
8	Plier

### **Power Operated Hand Tools**

1	Orbital sander Bosch make – 125mm
2	Electric hand drill Bosch make – 10 RE
3	Angle Grinder - Bosch Make GWS 6-100
4	Pillar Drill

### **Deliverables:**

- Supply of Hand and power operated tools for bamboo furniture making.



## **2.4 Bamboo Processing Unit**

**Objective:** The objective is to empower the trained artisans by providing them processed bamboo material to start production for Bamboo utility products

**Scope of work:** Under the above project primary bamboo processing machines will be supplied which can be utilized by the trained youth for enhancing their productivity, quality and product range. The unit shall have following equipments

## **2.5 Bamboo Cross Cut Machine**

### **Use and Description:**

Working of the machine is based on motor. Rotations of the motor are transferred on to the axel by a belt which helps rotation of circular blade/ saw. The circular saw cut the bamboo pole uniformly in desired length. The length can be adjusted through a rule guide present in the machine assembly.

### **Specifications:**

Horse Power	3 Hp
Motor Speed	2700 Rpm
Saw Blade Size	16"
Working Range Max. Diameter	200 Mm
Approx. Weight	200kg
Machine to be equipped complete with saw blade, motor electrical control, starter etc. Accessories like Bamboo resting stands for feeding, Bamboo length setting device with stopper, A collection stand.	

## **2.6 Bamboo Chain Splitting Machine**

### **Use and Description:**

Working of the machine is based on motor which forwards the movement of bar top supporter (which provides thrust) through a moving chain mechanism. The bamboo segment is held in between the radial splitting knife/ blade and bar top supporter. As a result of the force applied in one end of bamboo segment by the moving bar top supporter, it passes through the radial splitting blade resulting in uniform bamboo splits. As a result of one thrust 6, 8, 10, 12 bamboo splits are made depending on the blade used.

**Specifications:**

<b>Size of Splitting</b>	<b>Length 8 Feet Bamboo Pole</b>
Horse Power	7.5 Hp
Splitting Grills	6 No. Of Radial Knife For 6,8, 10, 12, 14 And 16 Pieces
Splitting Grills	Parallel For 2, 4 & 6 Inch Bamboo
Approx Weight	900

**2.7 Bamboo External Knot Removing Machine****Use and Description:**

The machine is used to clean the outer knots of the bamboo. It can also clean the skin of bamboo if required. Removal of external knot is performed in whole bamboo condition.

Horse Power	1.5 Hp
Cutter	Carbide Tipped Cutter
Working Range	0- 100 Mm

Machine to be supplied complete with motor, electrical starter and control panel.

**2.8 Bamboo Internal Knot Removing, Width Sizing Machine****Use and Description:**

The purpose of this machine is to remove the internal and external knots present on the joints of bamboo. The splitted bamboo is feeded on to the roller which passes the bamboo slats through width sizing arrangement and then towards the upper and lower cutters present in the machine. The rotations of the motor are transferred on to the axel that accounts for the rotation of cutters.

**Specifications:**

Horse Power	2 Hp × 2 + 3 Hp ×1
Capacity	12 – 15 Pcs Per Minute (Each Pcs Approx. 1 – Meter Long)

Working Range Max. Thickness Of Splits	25mm
Working Range Max. Width Of Splits	35mm
Approx Weight	500 Kg

Machine to be supplied complete with motor, electrical starter and control panel.

## **2.9 Bamboo Four Side Planner**

### **Use and Description:**

This heavy duty machine got four blades to accurately cut the slats in all the four sides to a uniform size. The machine consists of motorized cutters on bottom, top, fence side and near side mounted on a base frame. The bamboo strip is fed through the machine by motorized rollers to be plane on all four sides to a required dimension. The rotations of the motor are transferred on to the axel that accounts for the rotation of cutters.

### **Specifications:**

Horse Power	3 Hp x1 +2hp x3 +1 Hp x1
Capacity	10 – 12 Pcs Per Minute (Each Pcs Approx. 1 – Meter Long)
Working Range Max. Thickness Of Stick	25 Mm
Working Range Max. Width Of Stick	35 Mm
APPROX WEIGHT	650 Kg
MACHINE SIZE APPROX (LxWxH)	1.5 m X 1.2 m x 1.7m

### **Deliverables:**

- Supply of bamboo processing machines.
- Erection and commissioning of various bamboo processing machines.
- Trail run and training to the beneficiary.

## 2.10 Bamboo Treatment Unit

**Objective:** The objective is to setup a treatment and seasoning facility which will provide standard raw material for product development.

**Scope of work:** Under the above project, setup related to bamboo treatment and seasoning facility will be erected and commissioned at various places which can supply continuously proper treated and seasoned material for product development units. The unit shall have following equipment :

### 2.10.1 Chemical Impregnation Plant

#### **Use and Description**

For chemical impregnation of split bamboo strips with preservative chemicals (CCB and boron based). Equipment consisting of pressure vessel complete with high pressure and vacuum pumps, controls for automatic vacuum pressure - vacuum cycle.

#### **SPECIFICATIONS:**

Pressure cylinder	500 mm (inner dia) X 3000 mm length
Pressure	10 Kg (operating pressure)
Pressure	15 Kg (tested pressure)
Vacuum	400 Kg
High pressure pump	5 Hp
Vacuum pump	5 Hp
Quantity	0 No

### 2.10.2 Drying Kiln

#### **Use and Description**

For drying split bamboo lengths in bundles. Fabricated or masonry chamber of suitable size to accommodate 100ft of split bamboo in bundles equipped with air circulating fans, hot air heating system, electrical controls, panel etc.,

#### **SPECIFICATIONS**

Capacity	To dry 100 cft of bamboo bundles/charge
Heating	Hot air generated through electrically

	heated
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### **2.10.3 Bamboo Carbonizing Plant**

#### **Use and Description**

The carbonization process involves pressure heating or kiln drying. Both processes heat the sugar in the wood and result in a dark, amber color which may be either fairly uniform or variegated. Carbonized bamboo is not usually stained -- its color comes from its processing. It can be mixed with natural bamboo or blended with darker or lighter carbonized bamboo for different decorative effects.

Machine specification	:	Inside L- 1800 mm x H - 1400 mm x W- 1200 mm
Capacity	:	50 cft
For heat distribution	:	Ele. Motorised fan – 1 H.P. 2800 RPM – 1 Nos.
Temperature control	:	Automatic control panel complete with sensor for auto stop
Moveable trolley	:	1 Nos.
Heating	:	By waste bamboo/ electrically heated

#### **Deliverables:**

- Erection and commissioning of treatment, seasoning and carbonization facility
- Supply of bamboo processing machines.
- Trail run and training to the beneficiary.

### **MAJOR IDENTIFIED BLOCKS FOR INTERVENTION**

1. Padaratpur
2. C.B.Ganj
3. Mirnagar

### **3. SETTING UP OF COMMON FACILITY CENTRES FOR TERRACOTTA – INFRASTRUCTURAL INTERVENTIONS**

- The terracotta artisans make traditional products and sell locally. They lack awareness in terms of latest designs, Market trends etc.
- The baking / firing of the products are traditional as they do not have any furnaces for firing and glazing.

- Less exposure of the artisans in domestic and international market.

## **PROPOSED INTERVENTIONS**

In order to address the identified constraints the following interventions are proposed

### **3.1 IMPROVED FURNACE**

**Objective:** The objective is to provide improved furnace for firing and glazing

**Scope of work:** Under the above project, it is proposed to install improved furnaces at 5 different locations

**Deliverables:**

- Erection and commissioning of furnaces at 5 locations
- The technical drawings and details shall be provided by Central Glass & Ceramic Research Institute (CGCRI), Khurja (UP) and shall be erected, commissioned and testing shall be undertaken by their experts.

### **3.2 CLAY MIXTURE/CLAY BLUNGER**

**Objective:** It is used for mixing of clay.

- The technical drawings and details shall be provided by Central Glass & Ceramic Research Institute (CGCRI), Khurja (UP)

## **MAJOR IDENTIFIED BLOCK FOR INTERVENTION**

1. Ghangora
2. Piparia
3. Prahladpur

## **4. MECHANISMS FOR SETTING UP OF CFCs**

- The CFCs shall be set up with the technical experts of SPV where the procurement of the necessary Tools, Equipments & Machines shall be undertaken by SPV and erected and installed in the designated CFCs.
- Wherever there is involvement of construction work including commissioning and erection, the same shall also be undertaken by the SPV.
- The inventories made by SPV including plant, machinery, tools and equipments shall solely be the property of the SPV.

- The SPV shall assist in the trial production with the relevant technical experts however, the commercial production and its running and management including maintenance shall be undertaken by the agency/organization who shall be awarded the CFCs.
- Primarily the services of CFCs shall be utilized by the Members of SHGs/beneficiary group however, the services can also be rendered to others on nominal charges who shall be decided in consultation with SPV. The CFC service charges shall also be notified among the beneficiary group.
- An MOU shall also be signed between SPV and CFC.
- In case the proposals are not found feasible or lack of sound proposals, SPV shall initiate the setting of CFCs at the rented premises as pilot projects for the usage of beneficiaries.

## 5. ELIGIBILITY CRITERIA

**Following agencies shall be eligible for setting up of the CFCs :-**

- State Corporation/Govt. Deptt./ Central/State Agency or Any legal entity such as a society, SHG, NGO with a cash balance of atleast Rs.5.0 lakh during previous four quarters.
- Minimum three years of establishment and operations
- Minimum 15 artisans being member in the entity who should be partners or equity holders and should not be workers.
- Should be in working condition
- Should have working premises of its own or leased ( for atleast minimum 3 years)
- Should be ready to incur the recurring cost for running and management of the facilities
- Ready to sign the MOU with SPV for the running and management of facilities
- Should submit balance sheet of last 3 years as certified by CA

The offers should produce documentary proof of the above qualifications.

## 6. EVALUATION CRITERIA / MODE OF SELECTION

- A Committee will evaluate the proposal in the context of the requirement laid down in EOI documents, based upon which shortlisting shall be done.
- PMAC reserves the right to reject the proposal/s not conforming to the documentary requirement specified in the EOI document or whatsoever.
- The profile & track record of the applicant, turnover, credentials including past similar assignments etc. shall be used as a means of evaluating the capability and capacity of each applicant to execute the job in a safe, successful and timely manner.

The evaluation of Technical Papers will be done on the following parameters subject to minimum qualification:

Sl.No	Criteria		Max. Points/ Weightage
<b>1.</b>	<b>PAST EXPERIENCE OF THE AGENCY</b>		60
A.	Number of years experience 3 years	<b>Max. 5 points</b>	
	3 years and above	<b>Max.25 Points</b>	
B.	Previous experience of running Facility having plant, Machinery & equipment/ workshop for production	<b>Max. 30 Points</b>	
<b>2.</b>	<b>EXPERIENCE OF KEY PERSONNEL</b>		25
A.	Requisite qualifications - Max. 10 points		
B.	Relevant experience - Max. 15 points		
<b>3.</b>	<b>FINANCIAL STRENGTH OF THE COMPANY</b>		15
A	Turnover figure for last three years - Max.5		
B	Net Profit Figure for last three years – Max.3		
<b>Total</b>			<b>100</b>

## 7. GUIDELINES FOR SUBMISSION OF EOI

- i) **Cover-A** : Sealed and super scribed envelop which should have detailed contact details of applicant viz. full name, postal address, fax, email, telephone.
- ii) **Cover-B** : Sealed and super scribed envelop with “**Technical Papers**” which includes all the documents mentioned in the “**Selection Criteria and Evaluation Process**” as follows:
  - Formats for submission of EOI as per attached with the EOI document.
  - Agency's Profile in brief with details of staff / key personnel and 3 year experience in similar job with the documentary evidence.



- Copies of the audited Balance Sheet for the last three years should be enclosed, duly signed by the Chartered Accountant along with attested copies of Income Tax returns filed in last three years.

- PAN No., Service Tax No., ITR, EPF Statements, ESI Details, VAT (If applicable).

- Copies of the land papers/ownership certificate of the land/lease agreement.

iii) **Cover C** : Containing **Cover A & Cover B** Mentioning "Technical Quotes for collection of artisan data and Baseline Survey & Diagnostic Study for Mega Clusters" which should have full name, postal address, fax, email, telephone number of the applicant.

## 8. LAST DATE FOR SUBMISSION OF EOI

The last date for submission of EOI is 28.01.2015. The EOI received after due date shall not be accepted. The EOI should be addressed to Executive Director, National Center for Design & Product Development, 43, Okhla Industrial Estate, Phase-III (Behind Modi Mill), New Delhi – 110020.

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