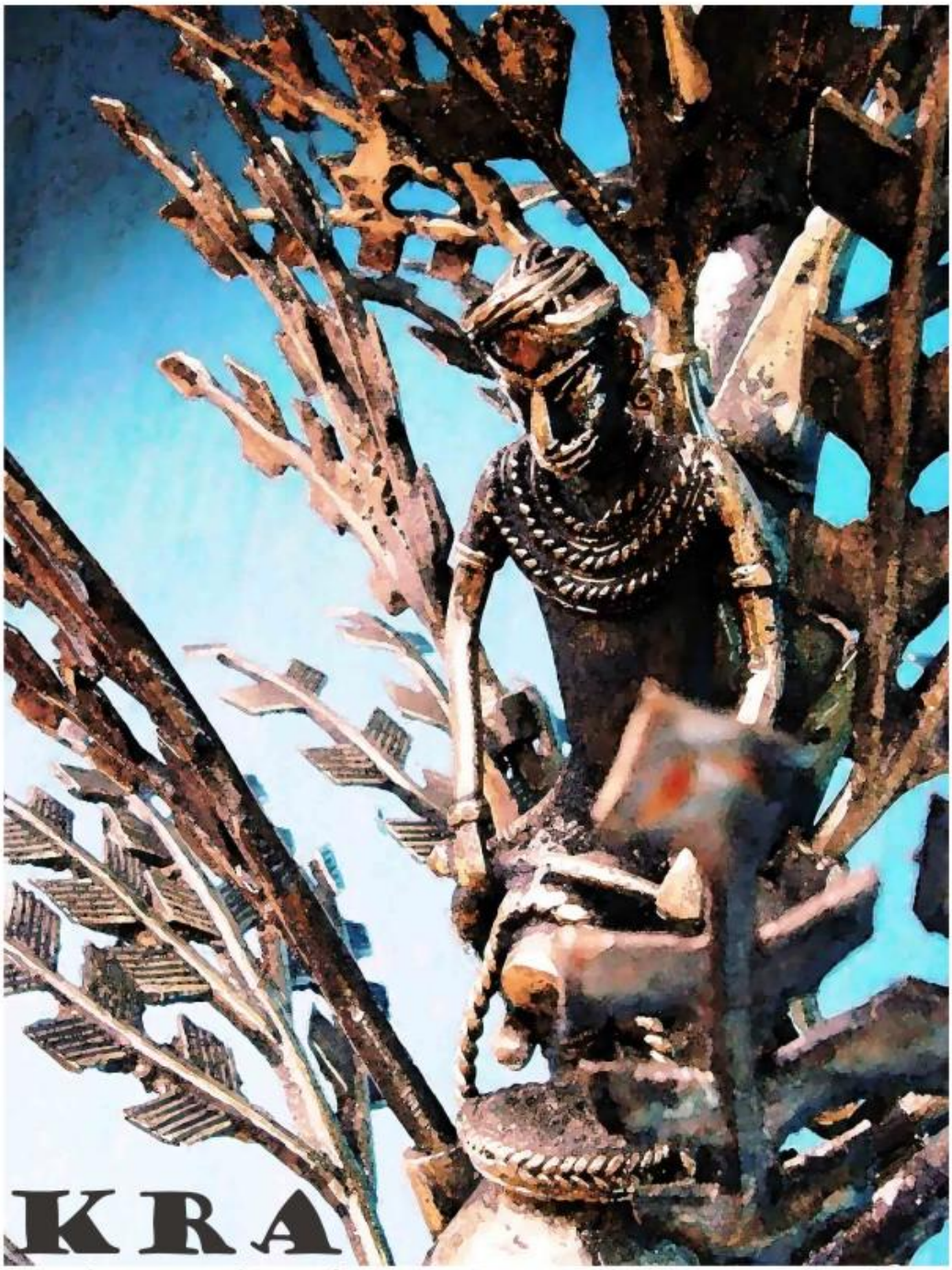

DHOKRA

Diagnostic Study andBusiness Development Plan

access

Presented to the Office of Development Commissioner (Handicrafts)

aiaca

Dhokra—Diagnostic Study and Business Development Plan

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I. Methodology for Diagnostic Study

A detailed methodology was followed to gather information on the cluster, identify the main actors, and collect trade and business data from them. Various tools including field visits, one-on-one interviews, focus groups and surveys were used to collect the required information. The following is a step-by-step description of the methodology used.

1. Desk Research and Setting Up of First Field Visit

This entailed the following steps:

- Gathering of information on cluster actors and contacts through interactions with a range of institutions including the Crafts Council India, Dastkar, Crafts Revival Trust, Dastkari Haat Samiti, Fabindia, National Institute of Design (NID), National Institute of Fashion Technology (NIFT) and Asian Heritage Foundation.

- Identification of and establishing contact with NGOs, individual artisans, master craftspersons and entrepreneurs working in the area to explore potential local project partners and resources. Also scanning for existing government schemes in the area.

- Identification of design and other professionals with previous work experience [through the above two steps] relevant to the cluster and initiation of discussions to explore their use as project consultants and resources.

- Scanning of books, documents and other reading material for sourcing initial archival material on the crafts process, design repertoire, local dynamics and existing linkages to markets.

2. Initial Field Scan, Field Visit and Hiring of Local Staff

- An initial field visit of 7-10 days was made to meet the artisans, groups and organizations working in the area.

- Local staff members were identified and interviewed to carry out a survey of the artisans in the area.

- A second field visit was then conducted to oversee the survey.

3. Existing Product Profile Review

This was undertaken through the following steps:

- Collection of samples from the cluster to review the design, quality and marketability of the product, after which the samples were reviewed by a panel of experts assembled by AIACA.

- Review of the costing process and marketability of the product at that cost.

- Review of the appropriateness of production methods, raw materials and the tools used.

4. Documentation of the Craft Production Process

- A detailed documentation of the craft production process was carried out. The original skill techniques being used were also ascertained and an assessment made of how the process has changed over time.

5. Survey of Artisans

- Demographic profiles of the artisans and ancillary workers, including their geographical locations were mapped. A selection and survey of 300 artisans was also conducted. The data was then compiled in a computerized format to obtain aggregate statistics from the survey forms.

6. Value Chain Mapping

- A detailed mapping of the Dhokra value chain was carried out. The mapping identified actors in the cluster who were involved in the business of crafts production and sales including raw material suppliers, master craftspersons, traders and other marketing intermediaries.

- A detailed analysis of the existing commerce in the cluster, including current sources of credit accessed by artisans and traders, was then undertaken.

7. Preparation of a Business Development Plan

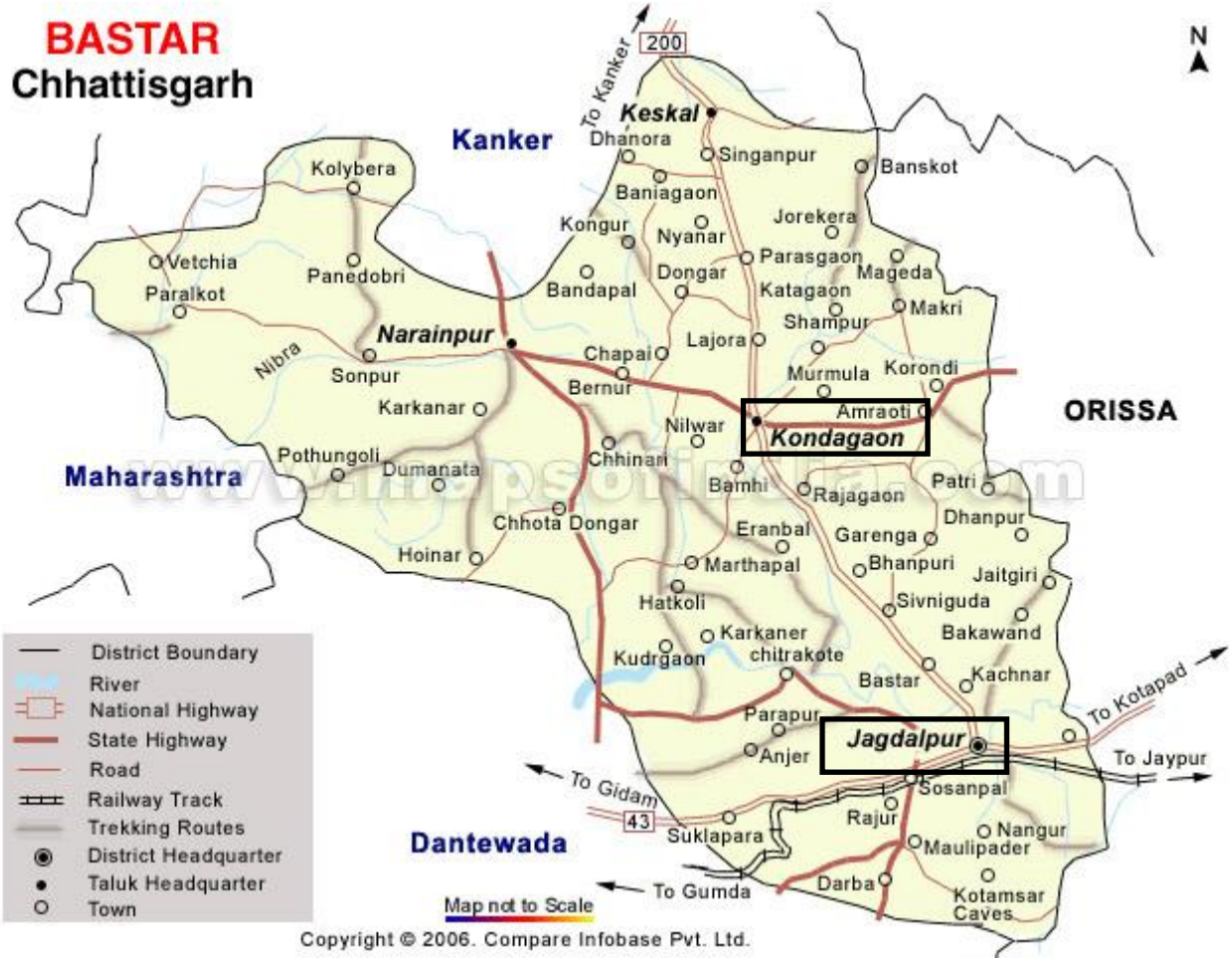
- On the basis of the information collected through the above steps, the analyses arrived at by professional staff members of Access and AIACA, and their interactions with a range of stakeholders in the crafts sector, a detailed Business Development Plan (BDP), which clearly lists the objectives, strategies and targets for the requisite interventions was prepared.

II. Location of Dhokra Clusters in Chhattisgarh

The Dhokra craft is found in Bastar, which is a district in the southern part of the state of Chhattisgarh. Bastar is bound by the states of Orissa and Maharashtra on its east and west, respectively. The total forest area in the district is more than 75 per cent of the total area of the district. Of the total population of Bastar, more than 70 per cent are tribals including the Gond, Abhuj Maria, Darda Maria, Bison Horn Maria, Munia Doria, Dhruva, Bhatra and Halba tribes. Other communities carrying out specific occupations are also found in the district, such as the Ghadwas, who are engaged in the Dhokra craft.

The city of Raipur in Chhattisgarh is the most convenient place from where one can access Bastar. The clusters in Bastar for the Dhokra craft are Kondagaon and Jagdalpur, which are situated 225 kms and 298 kms, respectively, from Raipur. It takes 5 to 6 hours to reach the clusters from Raipur. Raipur is linked with Delhi and Nagpur by air as well as by rail. The train Sampark Kranti Express is the best rail link from Delhi to Raipur, and it takes 22 hours to reach Raipur. Regular bus services are also available from Raipur for Kondagaon and Jagdalpur.

The region has a rich tradition of crafts and culture. Various crafts such as bell metal, terracotta, and wrought iron are also being pursued in this region.



III. Introduction—The Craft of Dhokra

Dhokra is a non–ferrous metal that is cast into various products by using the lost-wax casting technique. This sort of metal casting has been undertaken in India for over 4,000 years and the same method is still being used. One of the earliest known lost wax artifacts is the dancing girl of Mohenjo-daro.[1]

The oldest form of metal casting, 'Dhokra', is popular because of its primitive simplicity. This art style is a speciality of the semi-tribal communities of central India located in the states of Madhya Pradesh, West Bengal, and Orissa, and parts of the Vindhya mountain range. It is a very important handicraft because of its largely exclusive folk character. The tradition and technique of the Dhokra of Bastar bear distinct similarity with the Dhokra of Bihar, Orissa and West Bengal.

Dhokra handles

Dhokra crafts are made by casting bell metal (brass and bronze) manually through the vanishing-wax technique. These handicrafts include items like ornamental animals and tribal figures of varying sizes. The traditional products are mostly decorative items. Traditionally, idols of the local deities, utilitarian products like containers to measure rice or grains, jewellery, etc. were made by using this technique. The process of making the moulds is as old as the craft. All the decoration is done on the moulds with wax strings. Wax is the appropriate medium for this craft because of its unique softness and malleability. It can be drawn out in wires of the required thickness and can be easily moulded into the desired shapes. In addition, wax is locally available in the forests of the region.[2]

People worship the sun, moon, fields, mountain, jungle, and flora and fauna, which form a major part of their designs and motifs. They make idols of deities, and other accessories like bells, oil lamps, and incense stick-holders, among other things. The very foundation of the craft thus lies in the religious beliefs and practices of the people.

[1] Ref: *Dhokra*, [Online], Available at http://en.wikipedia.org/wiki/Dhokra

[2] Ref: Kochhar, R. [2003], '*Dhokra: The Traditional Art of Metal Casting*', New Delhi: Nistads Dhokra Museum

Dhokra: History and Tradition

The Dhokra craft has been discovered in the relics of the Mohenjodaro and Harappan civilizations, which proves the historical and traditional importance of the industry. The statue of the dancing girl, unearthed at Mohenjodaro is proof of the origin and continuity of the craft. It is this continuity of tradition, coupled with the intrinsic starkness and vitality of the art form, which makes Dhokra products coveted collectors' items in India and abroad for connoisseurs, scholars and laypersons alike.[3]

The Dhokra art is a major attraction in Bastar. The Ghadwas are small artisan groups who produce brass or bell metal objects. In Bastar, many folk stories are told about the origins of the Ghadwas, the foremost among which is the following tale: three hundred years ago, the ruler of Bastar, Bhan Chand was presented a gift, a necklace crafted in Dhokra craft for his beloved wife, which made him aware of the beauty of the craft. To honour the craftsman, he decided to bestow the title of Ghadwa on him, which is derived from the word *ghalna*, meaning to melt and work with wax. Therefore, since these people prepare the craft items by melting the metal through the use of the lost wax technique, they are given the name 'Ghadwa'. Another derivation of the name comes from the word *gadhna*, which means 'to make'.[4]

A Ghadwa artisan at work

Ghadna means the act of shaping and creating, and it is probably this term that gives the artisans, who cast the objects, mainly made of brass and copper, their name. In some regions, the craftsmen are also called 'Ghasia', 'Khaser', 'Mangan' and 'Vishwakarma'.

[3] Ref: Kochhar, R. [2003], '*Dhokra: The Traditional Art of Metal Casting*', New Delhi: Nistads Dhokra Museum

[4] Ref: Jain, Jyotindra [1988] '*The Absent Form: Tribal Bronzes of India*', New Delhi: Crafts Museum

IV. Dhokra—Craft Production Process

In the craft production process of Dhokra, it is bees-wax and not metal that gives material shape to the creative images that are formed. In Chhattisgarh, these artists, rather craftsmen, are clustered in Bastar district, wherein they are concentrated in the region around Kondagaon and Jagdalpur.

1. Raw Materials

The basic raw material used for making Dhokra articles is brass, which is procured in the form of used brass utensils or any other brass scrap. The brass scraps are available locally from traders who either collect them locally or source them from Dhamtari and Raipur. The brass scrap is available for Rs. 220 to Rs. 250 per kg of scrap, depending on the availability and market conditions. The other raw materials required are:

- *Aari Mitti/Chikti Mitti* (Black Soil): This is mud or soil procured from the beds of the fields. It is basically black soil, but precision in choosing it is very important.

- *Bhoosa* (Rice Husk): Husk obtained from the mills is mixed with the soil, to hold it together, as clay tends to break apart easily when dry; it also makes the mould porous and prevents the cracking of the mould during firing.

- *Rui Mitti* (Riverside Soil): This soil is procured from the riverbanks. The soil is very soft and easy to shape, mould and file, and hence facilitates good final shape and finishing of the product. The soil is red in colour. Precision in picking it is important here too, as the use of the wrong soil may lead to breaking of the product when heated.

- *Gobar* (Cow-dung): Cow-dung is mixed with the river soil as it allows the wax to melt out of the cast and helps prevent it from getting stuck on to the soil.

- *Lal Mitti* (Red Soil): This soil is available above ant homes in the soil.

- *Sem Patta* (Bean Leaves): These are lima bean leaves picked up from the plants. Although other plant leaves too could serve the same purpose, only bean leaves are chosen because of their high water content.

- *Mome* (Wax): Wax of two different types is used, both of which serve the same purpose. The first type is *madhumakkhi ka mome* (Bees wax), which is extracted directly from the hives available in the forests, while the second type is the *mombatti ka mome* (Paraffin or Candle Wax). Since candle wax breaks easily, it is mixed with *Damar* (coal tar) and *Agarbatti Dhoop* (incense stick powder).

- *Jalawan* (Fire Wood): This is generally obtained from the nearby forests.

- *Koyla* (Wood Coal): This is used to prepare a mixture for covering the layer on the model.

Brass metal scrap

Wax, metal and fire wood are used in a fixed proportion of 1:10:100; which means that for every kg of wax, 10 kg of metal is required, and for every kg of metal, 10 kg of fire wood is consumed.

2. Tools

The tools used in Dhokra craft are:

- Hammer;
- Wooden mallet;
- *Pichki-pharni:* used to draw wax strands of the required thickness;
- Chisel;
- Pliers;
- Tongs; and
- Wire brushes.

Pichki-pharni

Almost all the tools are made by the artisans either themselves or with the help of the local blacksmith or carpenter.

3. Process

There are two main processes of lost-wax casting: solid casting and hollow casting. While the former is predominant in southern India, the latter is more common in central

and eastern India. In solid casting, instead of a clay core a solid piece of wax is used to create the mould; hollow casting, on the other hand, is the more traditional method and entails the use of the clay core.

The entire process can be broadly divided into the following five major parts:

1. Modelling;
2. Moulding;
3. De-waxing;
4. Casting; and
5. Finishing.

(a) Modelling

Preparation of clay: This clay is used for structure-making and masking of the finer clay. River soil, rice husk, *deemak mitti* and sufficient amount of water are used for making the paste.

(b) Moulding

This entails the following steps:

- *Preparing the core model and coating it with the first layer*: Black soil in the fields (locally known as *chikti mitti*) is brought and mixed with rice husk in the ratio of 1 kg of black soil with 100 gms of rice husk. Water is added to knead it into a soft pliable dough. A basic model of the final required form is made and left to dry in the sun.
- *Providing the second layer*: When the model dries properly, clean sticky riverside soil (locally known as *rui mitti*) is brought and cleaned again; enough water as well as powdered dung or wood coal are added and mixed thoroughly and the mixture is kneaded into smooth pliable dough. This is patted all over the dry model and again left to dry in the sun. The proportions are in the range of 85-90 per cent of soil to 10-15 per cent of cow dung or wood coal.

Making the moulds

- *Shaping and filling*: When the model becomes hard and dry, it is filed and shaped with metal files to achieve a proper shape. The pieces of dry sticky soil, which have fallen, are gathered and softened by adding water to make a paste. Then the paste is dried again in the sun, moistened with water, applied all over the shaped model, and finally left again in the sun to dry.
- *Making a leaf paste*: When the model is thoroughly dry, it is scrubbed all over with both hands to remove dust and gravel. Fresh *sem* or country bean creeper leaves are crushed by rubbing them between both palms till a green liquid

oozes out. This liquid is then rubbed all over the model until the latter looks totally green. This is done to prevent the soil from sticking to the model. Finally, the model is again left to dry in the sun.

(c) De-waxing

This entails the following steps:

- *Preparing wax:* When the model is completely dry, raw bees-wax is heated in a pot over a fire. The melted bees-wax is filtered through a coarse cotton cloth into another wide-mouthed clay pot filled with water. When the wax is set properly, it is removed from the pot and shaken so that the water is separated from the wax.

Wax models

- *Making wax strings:* Wax strings are made from the prepared wax, which is softened by leaving out in the sun. It is then put through a hand-held or standing press similar to that used by *halwais* to make *sevaiyyan* and is called *phichki-pharni* in Bastar, somewhat like a spaghetti press in which metal sieves are inserted according to the thickness of the strings required.
- *Wrapping of strings:* When the requisite wax strings are ready, they are wrapped closely around the model, which is hard, dry and green, with the application of *sem*-leaf liquid. When the model is totally covered with wax strings, the chosen designs can be made with plain wax too. Now the model is fully decorated with wax strings and plain wax. A channel is then made at appropriate spots at the bottom of the model, where the liquid metal has to be poured for casting and a pin made from wax is inserted into it.
- *Layering with riverside soil and powdered wood coal:* Powdered sticky riverside soil and powdered wood coal are sieved separately through clean cloth, and mixed in the proportions of 85-90 per cent and 10-15 per cent, respectively. Water is then added, and the mixture is kneaded into a dough-like consistency and applied over the model.
- *Layering with unrefined sticky riverside soil:* Unrefined sticky riverside soil is taken and mixed with sufficient water and another layer is applied on the dry model. Care is taken to ensure that the holes or the channels for the metal are kept clear.
- *Layering from termite soil over the model:* Soil from the termite hill is brought, powdered and kneaded to make a smooth mixture. Then it is applied all over the model thoroughly and left to dry. Before it hardens, a bigger channel or channels from wax are added to the earlier channels (for pouring

metal) made at the bottom, and covered with termite soil mixture to make the passage ready (in the form of an inverted funnel shape) and dried.

(d) Casting

This involves the preparation of a furnace for firing and casting. The furnace is prepared on dry land by digging a one-foot deep pit with a diameter of 2 or 2.5 feet. The furnace can be a square or a rectangle. A wooden hollow pipe is then placed inside the furnace, and covered with wet termite hill (*pola*) or a pipe at an angle inside. After the soil is dry, wood coals are spread over it and at its bottom and lit. The model is then placed over the burning coals for firing. Wood is then kept all around and on top of the model and lit. Wooden sticks are used to prop up the model to keep it erect. The *pola* or pipe is used to blow on and keep the fire burning steadily. Another furnace is made to melt the metal pieces that are placed in a crucible. The crucible is placed on burning wood coal, surrounded with wood and lit. The *pola* pipe is then blown into so that the fire burns at a high temperature, reaching almost 1000-1200°C, which is required to melt the metal pieces. The fire is blown continuously.

Casting

The model in the first furnace turns red if kept properly in the fire. When the metal turns into a pouring consistency, the ready-fired model is lifted gently with tongs and brought near the crucible. The model is held upside down for the liquid bell metal to be poured in the channels or funnels made at the bottom. The crucible is then lifted with long-handled pincers and the molten metal is poured into the funnel so that it can pass through the channel to replace the wax inside the model. Then it is left to cool.

(e) Finishing

- *Cooling and finishing:* The model is left to cool for 1-6 hours, depending on its size. If it still does not cool down, water is sprinkled lightly on it to cool it down. When it cools down, the outer mould is broken gently with a wooden mallet. The original shape of the piece can then be taken out. Wire brushes are

used to clean the dried soil sticking on to it and filed gently. Then it is rubbed and cleaned.

Finishing

4. Product Range

Traditionally, the Dhokra craftsmen used to make elephant and horse figures, statuettes of local deities like Jhitku-Mithki, Matamurti and Gondidevi, and measuring bowls.

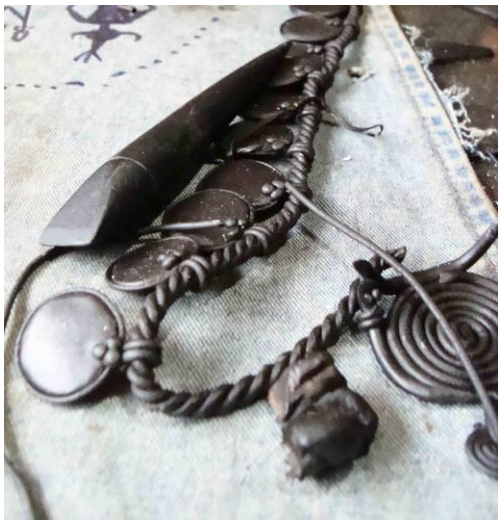
Now-a-days, the common Dhokra products made include images of Ganesh, Durga and the Nandi bull, lamps, lamp-stands, candle-stands, ash-trays, pen-stands, human forms, figures of Maria and Mareen (tribal figures), door handles, flower vases, mobile holders, face masks, water jugs, and key rings.

5. Current Scenario

The artisans practising the Dhokra craft are *Ghadwas,* who fall under the Backward Classes, and are not tribals. But the artisans claim that their ancestors were tribals who migrated from Maharashtra and settled in Bastar centuries ago. Hence, the tribal imagery of the Dhokra craft can be traced back to the ancestral lineage of the craftsmen.

The clusters of Dhokra craftsmen are spread in and around Kondagaon and Jagdalpur. More than 600 Dhokra artisans are reportedly working in this area. Only a handful of these artisans have, however, organized themselves under self-help groups (SHGs) or societies, most of which have become defunct now. Due to the demand for and popularity of Dhokra products, work is always available. Hence, the locals have started migrating from other daily wage jobs to Dhokra work. Various training programmes are also being organized by the Government to induct and train new craftsmen in this industry.

The Ghadwas engaged in this craft virtually serve the tribals, as Dhokra products constitute an essential part of the lifestyle of the tribals. It is said that a tribal's life is incomplete without these products, as both their birth and death are celebrated through rituals that cannot be undertaken without the use of Dhokra-made idols. Traditionally, the Ghadwa craftsmen used to supply the villagers with utensils for their daily use.



Wax necklace core

Other Dhokra products that are currently being made include figures of horses and elephants, apart from some jewellery pieces. Forms of locally revered deities also constitute a part of their work. With the market being flooded with bronze, copper, aluminum and steel utensils, the metal-moulding of utensils has suffered a setback and has completely vanished now. Fortunately, the decrease in the demand for the utensils did not affect the economics of the Dhokra craftsmen adversely as the demand for the jewellery they produced including *pairy* (anklets), *aenthi* (toe-rings), *fulli* (nose-pin) and *ghungru* (anklet bells), continued to increase.[5]

The demand for votive forms of elephants, horses and *kalash* (ritual pot), as offerings is encouraging. Subsequently, due to a decrease in the use of the traditional ornaments and an increased demand for Dhokra idols and ritualistic forms from outside Bastar, the craftsmen began to search for new forms. Gradually, besides the votive figurines, they have now included a number of birds and animals, decorative faces, tribal figures, dance poses and faces to their product range.

This craft is essentially dominated by men, but women also assist them in activities like making of the design with wax, and cleaning and polishing of the products after they are cast. The men take up heavier activities involving greater effort like casting, melting the metal, and handling the furnace. But the participation of women in the craft is increasing.

The current state of the craft is satisfactory but the following problems are causing obstacles in its development:

- *Availability of raw material*: Brass, which is the most essential raw material in this craft, is mainly used, while scrap brass utensils, which are collected from the surrounding region by the traders and sold to the artisan, also constitute the raw materials for the Dhokra craft. But with changing times and

[5] Ref: Jain, Jyotindra [1988] '*The Absent Form: Tribal Bronzes of India*', New Delhi: Crafts Museum

lifestyle habits, the usage of brass utensils has gone down and they are being replaced by steel or plastic. This is leading to a shortage in the supply of raw materials. The scrap that is available through these traders is also not up to the mark and has a lot of impurities.

- *Lack of working capital*: The artisans do not have enough capital to procure brass and start their own production. Most of the traders and buyers provide the raw material themselves and get the work done. This inhibits the artisans by preventing them from working independently instead of depending on the traders. Most of the times, the artisans are left with a lot of unfinished stock, and even if the complete mould is prepared, they may not have money to carry out the actual metal casting.
- *Missing marketing links*: Currently, due to the increasing popularity of the Bastar Dhokra craft, there is a demand in the market for these products but due to the lack of a linkage between the buyer and the artisan, these artisans are dependent on local traders, who act as intermediaries. Most of these artisans thus end up being exploited.
- *Working hazards*: This craft involves considerable risk in terms of the processes used in it such as casting, during which the temperature of both the crucible and the furnace is very high. This makes the craftsmen highly vulnerable to various health hazards. Apart from the casting, the moulds are prepared by the artisans while sitting on the floor, thereby causing most of them to contract problems like back pain.
- *Depletion of forest resources*: Most of the raw material such as bees-wax and fire wood, is sourced from the surrounding forests. This is an imposing danger for the forest resources. Trees are being cut down and the forest cover is getting thinner, which is having an adverse impact on the environment and the climate of the region. Consequently, the forest department has put a ban on the collection of fire wood from forests, forcing the artisan to look for alternate sources of raw materials.

The organizations working in the region are offering the required solution and assistance to the artisans. One of these, Saathi Samaj Sewa Sansthan, is based in Kondagaon. The activities of this organization vary from sustaining, developing and marketing Bastar's traditional arts and crafts to promoting literacy and heath education, and even sustaining the livelihood of thousands living in the region. Members of the Sansthan are also providing training and technical support to these artisans along with the financing and marketing of their products. They have helped form about 100 SHGs in the region, out of which 40 are specifically engaged in Dhokra. They market these products through exhibitions in various cities across India and also through organizations like Dastkar, Delhi, and Sasha Exports, Kolkata. The initiatives taken up by Saathi also include forest conservation, promotion of eco-friendly production methods and women's empowerment. Saathi is also working on the sustainable consumption of natural resources and has introduced the concept of gas furnaces for artisans. Although this concept is still not very popular with the artisans, it is still a step forward in the right direction. Saathi works with designers from India and abroad to develop new and interesting products by using the local skills. It also encourages the artisans to do a correct pricing of their products and helps them in achieving the right cost. The organization arranges several training programmes for the artisans of this region. Saathi is also working on developing a raw material bank for the artisans.

Individuals like Rajendra Bhagel and Anil Lukkad are also making efforts to improve the situation in many ways. Anil Lukkad is a trader in Jagdalpur, who started as a Dhokra item collector and has now ended up as a retailer for Dhokra products. He has taken up the initiative to start a Dhokra museum for preserving the tradition and culture of this art. Dhokra artisans sell him their products or he provides them the raw materials and gets the products made from the artisans by compensating them for the design and labour involved.

Another exporter, Sushil Sakhuja, who has set up a finishing unit in Raipur, exports Dhokra artifacts. He purchases unfinished products from the artisans and gets the desired finishing done in his factory to enable these products to appeal to Western sensibilities.

6. Product Pricing

The pricing of the Dhokra products depends on various factors such as the cost of raw material, labour and other costs involved. The artisans and the traders have developed an understanding amongst themselves. In the costing, the wages and raw materials required account for 40 per cent each of the total cost while the other overheads account for the balance 20 per cent. In addition, around 20 to 22 per cent is the profit margin or incentive for the artisans, which is part of the production cost. The trader then sells the products by adding his margin of 15 to 30 per cent on the production cost, which varies from one product to another. When the products are to be exported, the margin can even go up to 50 per cent.

The metal scrap is available at a rate varying from Rs. 220 to Rs. 250 per kg, which is fixed by the scrap traders. Bees-wax costs Rs. 200 to Rs. 220 per kg and the labour charges range between Rs. 125 to Rs. 150 per day, for a shift of 7 to 8 hours.

7. Steps Ahead

In order to increase the benefits to the artisan and to improve the situation of the Dhokra craft in Chhattisgarh, the following interventions may be recommended:

- *Organizing the local artisans*: Currently, most of the Dhokra artisans are working independently and only a few of them have formed and organized themselves into SHGs, most of which are not effective anymore. Therefore, steps need to be taken to re-organize them and inculcate the importance of collectiveness in these artisans.

- *Skill upgradation and capacity building*: Workshops or training camps need to be organized frequently so that the artisans can upgrade their craft in terms of technical aspects, skill building and marketing. These programmes can be conducted with the help of master craftsmen, local organizations such as Saathi, and other artisans undertaking highly skilled Dhokra work.

- *Technical inputs*: Even today, Ghadwas are using the same tools and machinery that their forefathers used. Some of the tools and processes need to be upgraded to achieve the quality, quantity and finish that the market demands and yet not lose the hand-made aspect of the craft. The artisans should also be made aware of the various hazards they face while engaging in the Dhokra production process.

Precautions such as following certain postural procedures while working should be made mandatory.

- *Product development and design inputs*: Designers need to conduct and organize design development programmes, and to develop high-end and contemporary products in order to help the artisans to better understand the ever-changing market scenario and its needs. The restricted product range needs to be expanded and along with utilitarian articles, decorative products also need to be created as they have greater demand and fetch good prices in the market.

- *Market linkages*: A wide range of market support activities needs to be planned Such as creating linkages to commercial buyers, high-end stores, and outlets selling designer collections. Dhokra artisans themselves need to be exposed to the various marketing platforms so that they can directly interact with customers, obtain product feedback and get an exposure to retail outlets in the major metros. There is also need to develop promotional material that would talk about the craft and help the layman differentiate it from other kinds of metal craft available in the market.

- *Cleaner production processes*: Initiatives should be taken to implement better and more efficient methods of production, which do not harm the environment. The excessive use of fire wood from forests is leading to increasing deforestation and other ecological concerns. Newer and cleaner kilns should thus be introduced such as gas furnaces, which have proven to be 85 per cent more successful than the traditional methods. The artisans should be educated about the importance of ecology and the need to preserve it; they should be made aware of the ways in which their production methods can be modified into eco-friendly ways.

- *Easy availability of raw materials:* The raw materials can be provided by a government agency, which can ensure that these are available at a steady rate and not dependent on the fancy of the local trader. This measure will also ensure the good quality and steady supply of metal. Wax and wood can be channelized through the forest department, which can maintain a control on prices.

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- Field visits to Kondagaon and Jagdalpur; and interaction with local artisans, crafts groups and traders.

V. Product Review

AIACA team purchased a few samples of copperware products during their field trip to Chhattisgarh. These samples were reviewed by AIACA's panel of experts. The products were sent to all the panelists for review and they were asked to give their feedback on the following attributes: quality, colour and design, price, and product potential in the domestic and international markets. They were also invited to offer suggestions on the product range and designs.

The products varied in price range (from Rs.100 to Rs. 550) as well as in design, usage, quality of the skill and the product's overall appearance.

Product 1, Rs.375

Product 2, Rs.550

Product 3, Rs.350

Product 4, Rs.150

Product 5, Rs.100

The panelists included:

- Sanjeev Kumar, *Associate Professor, Accessory Design, NIFT, New Delhi:* Prof. Sanjeev currently holds the chair of the Head of Department, Fashion and Lifestyle Accessories, NIFT, New Delhi. He has over 15 years of academic as well as hands-on experience in the crafts sector.

- Amitra Sudan Saha, *Product Designer*: Amitra is a graduate from the Indian Institute of Crafts and Design (IICD), specializing in Hard-Material Application. He has four years of experience in the crafts and design field. He is currently working as a consultant with the Asian Heritage Foundation, New Delhi on a World Bank-supported project funded by the Japan Social Development Fund. The project aims at building creative livelihood for cultural creative industries.

- Ashima Tiwari, *Associate Professor, Textile Design, NIFT, New Delhi*: Prof. Tiwari is an NIFT graduate specializing in Textile Design. She has worked with handicrafts and home furnishings for four years. She has also worked as a designer with Ambadi Enterprises, a firm engaged in the export of textiles, home furnishing and carpets, and the National Centre for Textile Design (NCTD). Currently, she is teaching Woven Design in the Textile Design department of NIFT, New Delhi.

- *AIACA's In-house Design and Marketing Team:* AIACA has an in-house design and marketing team, comprising designers from IICD, NIFT and the University of Sydney. They have extensive experience of working with the artisans on design, product development and marketing.

Given below is the feedback provided by the above team of reviewers on the products and their suggestions for future product design and development:

1. *Quality*: The quality of the Dhokra products is satisfactory, but can be refined further in terms of detailing, balance and dimensional stability. The rustic finish gives the products a tribal essence and feel of antiquity.

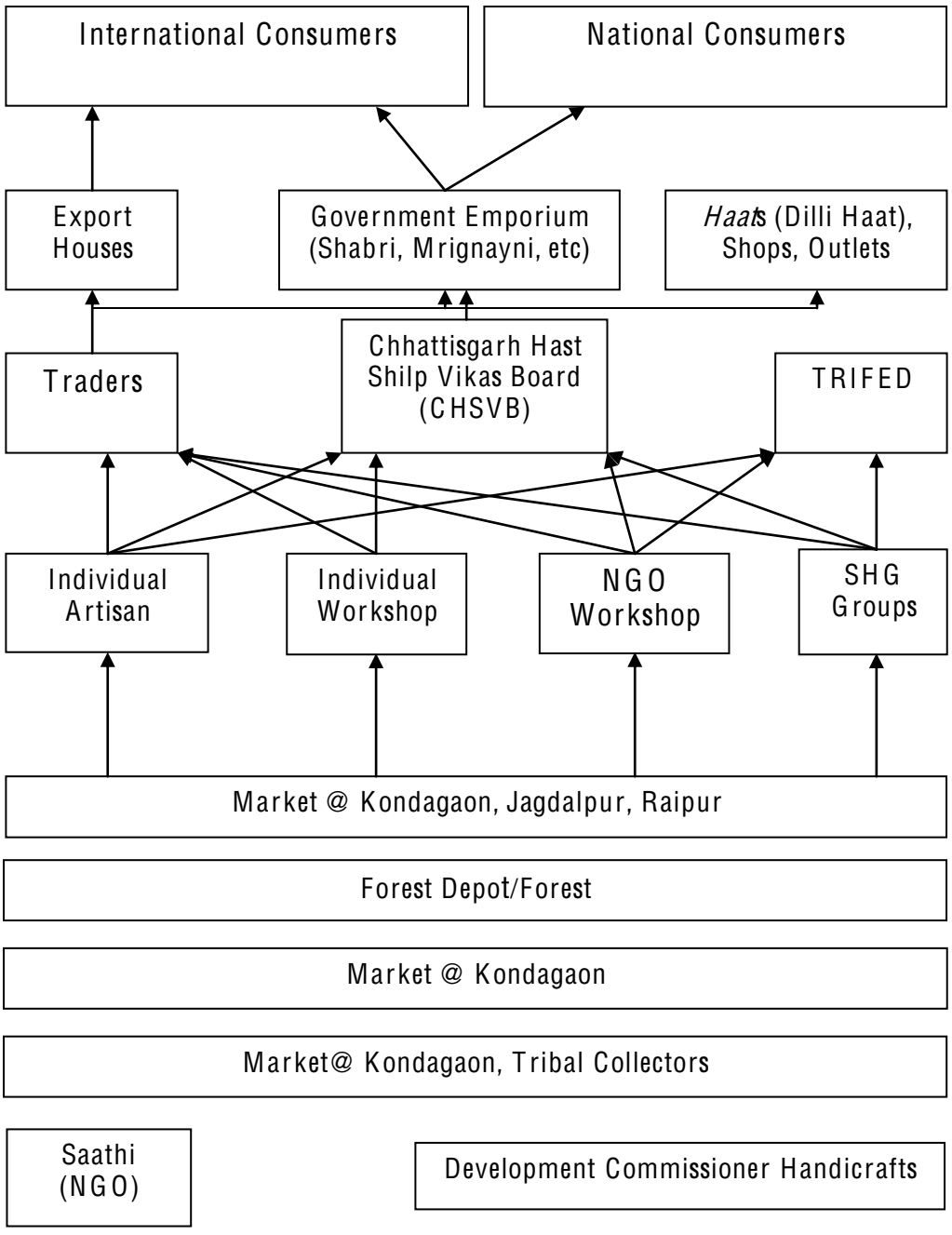
2. *Design*: The traditional touch of the Dhokra craft needs to be retained by restricting the contemporization of the existing products to an extent. The product range too needs to be expanded for it to have access to a wider market and consumer base.

3. *Price*: The products are priced well. New product ranges and designs can easily be introduced in the higher price brackets. With modification in design, product finish and value addition in terms of utility, the product can command a good price.

4. *Product potential in the domestic and the international markets*: The products have a huge potential in both the domestic and international markets but one need to work on their design and finishing. The product category needs to be diversified and newer lifestyle as well as multi-utility product ranges can be designed to cater to wider domestic and international markets.

5. *Suggestions on product range*: It is possible to bring in innovation with the existing product ranges. Multi-functionality is the key element. Some of the innovative ranges that can be worked upon include desktop accessories, hardware and fittings, gifts for sacred spaces, space dividers for interactive spaces, and installation and products for museums and hotel spaces.

VI. Value Chain of the Dhokra Craft



1. Status of Processes in the Value Chain

(a) Research and Development

There has been little intervention in the research and development (R&D) aspect of the craft. According to the artisans, R&D is needed in designs, production processes and the market.

The main players in the region have been NGOs such as Saathi, which has collaborated with technical institutions to develop efficient technology and newer designs for these products. The Development Commissioner, Handicrafts (DCH) has also been supporting activities related to designs. However, the efforts of these agencies have been limited and have not reached most of the artisans. Meanwhile, the artisans have themselves improvised designs in their product lines.

New markets have been identified and developed by traders and in some cases, by the Chhattisgarh Hast Shilp Vikas Board (CHSVN). In both the cases, however, a large part of the potential for further development is still unrealized.

(b) Input Supply

The major inputs required in the craft are Dhokra metal, wood, white wax, honey wax, coal tar, *dhoop* (incense), *nausagar*, soil (black, yellow and red), cow dung, coal, husk and leaves.

The main raw material, viz. brass and bronze metal, is available at the local hardware shops in Kondagaon. However, given the capacity of the shopkeepers, the material is ordered from the bigger neighbouring markets like Raipur, Jagdalpur, Durg and Dhamtari. This leads to an average waiting time of 3-5 days for the artisan.

Wood is generally procured from the forest depot, if not directly from the forests. White wax is easily available at the local market while honey wax is procured from the tribal families that are engaged in honey wax collection. There are several such families in Narayanpur village.

Tar coal is acquired from locations where the road construction work is underway or from the depot of the Public Works Department (PWD). However, tar coal is utilized only by the artisans living near the main roads. Artisans from the interior villages utilize only honey wax.

All the soils that are required in the production process are obtained locally. The black soil is obtained from the fields. The yellow soil (locally known as *rui mitti*) is purchased and found in riverbeds. Red soil is collected by the artisan families from the termite colonies found amply in the forests.

The remaining raw materials are available locally.

(c) Production

The production of Dhokra craft entails 12 steps that have been described in Section IV above, entitled ‘Dhokra—Craft Production Process’. Broadly, the following three types of units produce the Dhokra craft.

i) *Individual Artisans:* More than 70 per cent of the artisans are engaged in the craft as individuals. This group comprises a large number of families residing in the interior areas. For these families, the production is limited and they work with basic equipments. These individual units have a capacity to produce items worth Rs. 7,000/- to Rs. 25,000/- per month, depending upon factors such as family size, distance from markets, type of equipments, etc. These units generally don't work at their optimal capacity.

   Different government and non-government agencies have made several efforts to provide technological support to these families through "Common Facility Centres (CFCs)". However, the number of CFCs is insufficient and in some cases, they have failed to achieve the desired objective due to internal conflicts amongst the artisans. Some of these families have been provided with "Karamshalas" by the CHSVN.

ii) *Individual-owned Workshops*: About 20 per cent of the artisans are engaged in the Dhokra craft as employees. There are about 12-15 individual-owned workshops, which are run by relatively settled artisans with sufficient finances and marketing links. Here, artisans from the same locality work on a wage rate basis. The production capacities of these units terms of the financial worth of the items they produce range between Rs. 1,50,000/- and Rs. 4,00,000/- per month. The wage rates in this set-up vary from Rs. 40-60/- per day for general work to Rs. 180-230/- for specialized work.

iii) *Self-help Group (SHG)*: About 10 per cent of the artisans work in SHGs. There are about five SHGs in and near Kondagaon which are engaged in the Dhokra craft. These groups have primarily been promoted by the forest department and have been named as Jhitku-Mitki groups. They have been provided Rs. 1 lakh each for establishing a kind of CFC (comprising a shed and equipments) for the group. The production capacities of these groups in terms of the financial worth of their products ranges between Rs. 1,50,000/- and Rs. 2,50,000/- per month. These groups are, however, still struggling with the marketing aspect and are sometimes compelled to sell off their produce at minimal profit due to lack of working capital.

   The department is now planning to provide marketing support to these groups through their Non-Timber Forest Products (NTFP) and herbal medicine outlet called 'Sanjeevni'.

The production, in case of all the units mentioned above, is mainly governed by the orders that are placed. The number of artisans, especially the individual ones, is limited due to the money crunch. They either take an advance from the trader (government agencies have no system of paying an advance) or supply products in small batches so that the earnings can be rolled over. In some cases, wherein they are forced to take credit locally, the rate of finance is up to 10 per cent a month.

(d) Procurement

The selling of produce at the primary producer's level is mainly done through three channels. About 50 per cent of the produce is sold through personal contacts to agents, traders, and shop-owners located in major cities. About 25 per cent is sold to

government agencies like Shabri and TRIFED, while the remaining is sold to local traders.

(e) Processing and Marketing

In some cases, processing is involved before the produce is sold to the final consumer. Processing includes buffing, product enhancement, polishing, quality improvement and packaging. The marketing of the product is mainly done through emporia and shops.

(f) Entry Barriers

Following are the major barriers to the entry of new families in the Dhokra craft:

- The craft is quite specialized and, therefore, requires training and inputs for a considerably long period of time.
- The initial investment for equipments is quite high.
- There is a general understanding among the local communities, though not necessarily followed, that only the community which has been engaged in this particular craft should carry it forward and that the families of the other castes should not be allowed to take it up as a livelihood option. The community in the case of the Dhokra craft is that of the Ghadwas, who fall under the OBC category.

(g) Growth Barriers

Following are the major barriers to the growth of the existing families pursuing the Dhokra craft:

- The most critical factor limiting the growth of the families engaged in the Dhokra craft is lack of good market linkages. As discussed above, most of the units operate at lower production levels as compared to their potential mainly due to a limited market.
- The second critical factor is the lack of finances, which limits the growth of artisans' families in terms of both production as well as the provision of credit facility to the buyers.
- There is a high probability of losses in the production process, which results in lower profit margins.
- Poor quality control and design limit the access of the artisans to premium markets.

2. Margins at Each Node of the Value Chain

It is very difficult to calculate the margins at different levels of the Dhokra craftsmanship as there are several items for sale and even within each item, there is a difference of workmanship and quality. The calculations are, however, relatively standardized for the government set-up while they vary hugely in the case of private operators.

The following quote from a trader's interview indicates the extent of the margins in product pricing: "A product which is procured in Kondagaon for Rs. 1000/- may sell for Rs. 1700/- in Bhopal to more than Rs. 3000/- in the metros."

(a) Primary Producers' (Artisans') Level

The margins at the primary producers' level vary between 15 and 30 per cent, depending upon the quality of the product and the buyer. As regards the quality of

the product, a relatively standard system is adopted wherein the product is classified into three categories, viz. A, B and C. The price variation among the three categories would be around 10-15 per cent. The products are sold both on a per piece basis and on a weight basis. As regards the buyers, government agencies usually procure the products at a lower rate and are not concerned with the quality while private parties pay a premium but are very particular about the product quality.

The quality of work is judged on the basis of two aspects: the quality of workmanship involved (that is, the designs and the finesse in their execution) and cleanliness/shinning (buffing) of the product. There is, however, a huge scope for negotiation in all the business that takes place at the level of the artisans.

(b) Primary Procurement Level

Several agencies are involved at the primary procurement level. The margins at the level of each agency level are as follows:

i. Chhattisgarh Hast Shilp Vikas Board (CHSVN): The CHSVN procures the Dhokra craft products through Shabri emporia, which sell these products through the various emporiums across the state and through other agencies in the neighbouring states. No value addition is done to the product in terms of form.

The Shabri emporium in Jagdalpur procured about Rs. 40 lakh worth of produce last year. The margin at their end is about 84 per cent, which is calculated as 60 per cent+ 15 per cent on the procurement price. However, they also provide up to 19 per cent (that is, 10 per cent + 10 per cent) discount on special occasions. A further discount of 10 per cent is given to a visiting VIP.

ii. Traders: Several types of traders are operating in the area. The smaller/local traders usually procure the products directly from individual artisans and sell them to emporia and markets located in areas like Jagdalpur, Raipur, Bilaspur, Orissa, etc. They usually put a mark-up of 20-30 per cent on the procurement price, which includes their cost of transportation, buffing and taxes. The effective margins are thus about 10-15 per cent excluding costs.

The larger traders having access to better resources usually procure the products from fixed artisans/workshops. They also often pay a premium for quality products. They usually take their produce to major cities like Delhi, Mumbai, Bangalore, and Hyderabad for marketing. Their margins are not fixed as they invest in further value addition of the product through buffing, transportation, colouring and quality control. Their margins vary from upwards of 30 per cent. One of these traders (Sushil Sakhuja) has been exporting these products to international markets with substantial value additions.

iii. TRIFED: TRIFED has an office in Jagdalpur, which procures Dhokra craft products only from tribal families. They have the following standard systems of procurement:

- Statue of 1 ft.—Rs. 1000/-
- Statue of 2 ft.—Rs. 2000/-
- Statue of 2.5 ft.—Rs. 3000/-

- Statue of 3 ft.—Rs. 5000/-

The quality standards that TRIFED adheres to are very high. They approach the local artisans on the basis of the demand made by TRIFED offices across the country. The product is sold through their outlets across the country. They have a margin of 22 per cent excluding costs (that is, mainly transportation and taxes).

(c) Final Selling Point Level

There can be several final selling points for the products. Based on the locations, the margins vary. The average margin for a shop/emporium varies between 15 and 30 per cent.

3. Profile of Artisans

The demographic and professional profile of the artisans covered under the study is detailed below.

(a) Social and Gender Profile

The Dhokra metal craft has been practised by communities known as the Ghadwas. These Ghadwas belong to the OBC category but over the years, the craft has also been taken up by other groups. An equal percentage of STs and OBCs are found to be practicing the craft in the area. A small percentage of SC families also practice the Dhokra craft.

Table: Social Profile of Dhokra Artisans (in %)

SC	*ST*	*OBC*
13	43	44

As regards the gender profile, about 60 per cent of the artisans involved in the craft are male.

(b)Educational Profile

The level of education is found to be low among the older artisans. In general, the level of education is relatively better among the younger artisans. The educational profile is also seen to vary with the location of the artisans' residences. Artisans living in villages located close to Kondagaon have better educational levels as compared to those living in villages that are relatively inaccessible.

Table: Educational Profile of Dhokra Artisans (in %)

None	*< 10th*	*➢ 10th*
35	55	10

(c) Annual Family Income

All the artisans surveyed were found to be practising the craft. The average annual family income across the villages varies from Rs. 13,000/- to Rs. 42,000/-.

(d) Skill Training

About 80 per cent of the artisans have acquired this skill from their families. The remaining 20 per cent have attended training programmes organized by Saathi/the *Zila Panchayat*/Development Commissioner, Handicrafts (DCH).

(e) Skill Levels and Work Profile

About 60 per cent of the artisans were found to have a high skill level. Only 3 per cent were found to have low skills. Nearly 80 per cent of the artisans were engaged full-time in the Dhokra craft. About 28 per cent of the surveyed artisans were found to be working in a group that could be an SHG, a private-owned workshop or an NGO-owned workshop. Only 17 per cent of the artisans were found to have attended training programmes in the craft.

(f) Source of Working Capital

The annual need for working capital varied across the artisans and ranged between Rs. 5,000/- and Rs. 50,000/-. The source of working capital for most of the artisans was either their own savings, advances against orders or loan from the State Bank of India (SBI). Only 6 per cent of the artisans were found to have an Artisan Credit Card and less than 4 per cent had a Bima Yojana (insurance policy).

(g) Design Support and Channels for Sale

About 80 per cent of the artisans use their own designs and themselves make changes in these designs. Only 2 per cent have obtained inputs from professional designers. The remaining get design inputs from the traders/TRIFED.

The major channels for sale for these artisans are local traders (from Jagdalpur, Kondagaon and Raipur), Government emporia (Shabri and Mrignayani)/ TRIFED and bigger traders located in major cities.

4. Supporting Institutions

Several institutions support the value chain of the Dhokra craft. These are detailed below.

(a) Banks (Chhattisgarh Grameen Bank and SBI)

Given the capital requirement by the artisans, the banks in 2007 provided loans to about 27 artisans for buying equipments and for procuring working capital. However, the repayment rates registered during the last couple of years have been very poor as a result of which the banks have withdrawn from this product.

(b) Chhattisgarh Hast Shilp Vikas Board (CHSVN)/Shabri

The CHSVN has been sending the artisans to various fairs/exhibitions across the country wherein these artisans are able to not only sell their produce but also develop contacts with local traders there. The CHSVN, through Shabri, has also been playing an important role in the marketing of the products through its retail outlets.

(c) TRIFED

TRIFED has been supporting the value chain through the procurement and selling of the Dhokra craft products through its chains across the country. However, the role of TRIFED is confined to working only with the tribal families.

(d) Development Commissioner, Handicrafts (DCH)

The office of the DCH has supported the artisans through organization of design training programmes by expert designers and by supporting their participation in

trade fairs across the country. In fact, DCH itself organizes two international trade fairs every year for the artisans wherein the artisans benefit not only through the sale of their produce but also in terms of developing linkages with potential buyers. However, an artisan gets a chance to visit these fairs only once in three years.

(e) Forest Department

The Forest Department has provided financial support to the SHGs involved in the Dhokra craft. The Department offers financial support of Rs. 1 lakh for each SHG, which includes the provision of equipments, sheds and some funds as working capital. The Forest Department now also plans to help these groups in marketing their produce through their forest shop, Sanjeevni.

(f) Collector's Office/Zila Panchayat

The Collector's office/*Zila Panchayat* has been supporting these artisans by offering training support for new artisans and by providing them with common facility centers (CFCs). They have also provided financial support to artisans for starting new units under the various government schemes.

5. Recommendations

The value addition chain of the Dhokra craft needs integrated intervention to enhance the incomes of the craft workers and to promote the craft. In this regard, the following recommendations are thus presented for each node of the value chain:

(a) Research and Development

- There is very little happening in terms of research and development (R&D) related to the Dhokra craft. The key areas which require R&D support are the production process, designing and marketing process.
- In the production process, there is a need to reduce the number of steps involved in the production in order to increase efficiency in production. In addition, the process needs to be made more environment-friendly by replacing wood, a key raw material used in the craft, with a suitable alternative.
- Design changes have been brought in the craft but the products have remained virtually unchanged, that is, images of deities, animal figurines, etc. Newer items, therefore, need to be added to the portfolio on the basis of the market demand.
- Untapped markets need to be explored and the products need to be diversified as per the potential consumer needs.

(b) Input Supply

- The supply of bell metal to the local market primarily comes from Dhamtari or Raipur. The artisans often have to wait for more than 5-6 days before they receive their orders. This is especially true when the demand for the metal is high. There is thus a need to ensure the regular and timely availability of bell metal.
- The wood used in the craft is generally collected from the forests/forest depot. This raw material, though relatively easily available presently, needs to be replaced with a suitable alternative.
- The other inputs are, however, easily available and do not require any intervention.

(c) Production Process

The recommendations for the production process are primarily related to technological interventions. However, it needs to be mentioned here that the uniqueness of the Dhokra metal craft practiced in Bastar lies in the fact that it is hand-made. The following recommendations are thus made keeping in mind this hand-made aspect of the craft:

- There has been limited technological intervention in the production process. A major change has taken place only in the process of melting of the bell metal. With a melting capacity of about 5 kgs of bell metal a day with *Phukanas* (made of leather) and subsequently about 1 quintal with hand-operated fans, the latest addition is the furnace wherein the artisans are able to melt more than 2 quintals of bell metal per day. The NGO, Saathi, with technical support from the Indian Institutes of Technology (IITs) has developed this product but it is still in the process of refinement. The Forest Department has also provided its SHGs (the Jhitku-Mitki groups) with this apparatus.
- The entire production process is slow and still entails the 12 steps that have been followed over generations. In addition, the process needs to be further refined to reduce losses arising from minor process errors.
- One of the critical steps in the production process is 'buffing', which adds about 15-20 per cent to the value of the product. Due to the high cost of the machine, most of the artisans are unable to own it, which adversely affects their income. The setting up of group-based buffing machines seems to be a viable option. In some cases, these machines have been provided at the CFC.
- The production process requires substantial investments. Given the poor financial status of the artisans in the area, they require regular rolling of funds, which is not always possible. This limits the production capacity of the artisans and affects their earnings.

(d) Marketing

- The artisans in the area find it difficult to market all their produce. A large number of artisans operate at much lower production levels as compared to their capacity due to the lack of marketing avenues for their produce. The situation is worse for artisans located in the interior areas as the major orders are taken by the workshop owners or individual artisans residing in Kondagaon. There is thus a critical need to link the artisans in the interiors to the markets.
- The lack of capacity to take large orders also limits the growth of the marginalized artisans. There is a need for integrating these marginalized artisans into the mainstream business by offering them financial support.
- There have been very limited interventions in the design aspect of the craft. The artisans over the ages have themselves been bringing about design changes in their products with some inputs from their buyers and by learning during the exposure visits.
- There is now a need to create/target new markets for the products. Some of the targeted markets can be:
    i. Interior designers and construction agencies;
    ii. Festival markets;
    iii. Local markets for low-cost products;
    iv. Corporate organizations for institutional marketing;
    v. Government/privately-run emporia across the country;

vi. Contemporary urban markets; and
vii. Government and private institutions (for gift items, decorative items).

- A larger number of individual artisans and workshop owners have earned ill-repute among big traders operating in the region. The primary reason for this is that the artisan tends to sell his product to the buyer who is willing to pay immediately even if he (the artisan) has accepted an order from elsewhere. There is thus a need to provide financial support to the artisans so that they have the capacity to take large orders and can also provide credit facility to the buyer.
- There is also a need to ensure quality control of the produce as the bigger traders who are willing to pay premium prices have very high quality standards. The government emporia, on the other hand, take the produce of any quality and offer lower rates than private traders.
- Some traders add further value to the products and sell them in the premium national/international markets at substantial margins. The potential in this area too needs to be exploited (for example, Sushil Sakhuja, a local trader from the area, adds further refinement to the product and sells it in the national and international markets).

VII. Dhokra—Business Development Plan

1. Objectives of Intervention

The objectives of ACCESS and AIACA in intervening in the Chhattisgarh Dhokra cluster will be guided by the principles of aggregating the individual artisans, reviving defunct SHGs in the cluster, working through existing entrepreneurs and NGOs currently associated with the craft, increasing artisan welfare and promoting commercially sustainable production and marketing structures in the cluster. Based on these principles, the following will be the main objectives of intervention in the cluster:

Objective 1: Revive the defunct SHGs in the cluster

As highlighted in the value chain analysis, currently only 40 per cent of the SHGs are functional. More than 45 per cent of them are defunct. Some of these SHGs were started by Saathi, a local NGO working in the area while some others were started during the Government-run programme. The primary objective of the intervention will be to understand the problems of these SHGs revive them and make them operational. ACCESS and AIACA would target all the non- functional SHGs by the end of year 1 (Y1) of the intervention and involve all the others as well by year 3 (Y3). At least 50 per cent of the members in the SHGs would be women.

Objective 2: Increase the number of functional SHGs and aggregate the individual artisans into collectives

As highlighted in the value chain, approximately 70 per cent of the artisans work as independent workers from their homes while some of them are members of SHGs or work directly with the local entrepreneurs. Individual artisans are unable to meet the market demand for the products due to the lack of finances, raw materials, design innovations and market linkages. ACCESS and AIACA would aggregate these artisans into collectives and also work with entrepreneurs running their own units (who are also artisans but have funds and market linkages to set up their own units). ACCESS and AIACA would address the problems of these artisans during Y1 and year 2 (Y2) of their intervention and bring in at least 50 per cent of them under the proposed programme.

Objective 3: Increase accessibility to raw material and technical inputs

As was revealed during the field visit of AIACA team members and in the process documentation, the availability of raw material is a big issue for the artisans, entrepreneurs and NGOs involved in the craft. The tools and production process used need to be upgraded to achieve more efficiency in the process. ACCESS and AIACA would address this issue in the intervention plan and assist in making the raw material easily available at competitive prices. Some SHGs could be made to function as raw material supply depots for those involved in the production of the Dhokra craft.

Objective 4: Develop new product lines more suited to urban markets

Introducing and diversifying the product mix and improving product quality will be the key to raising the sales of Dhokra products. ACCESS and AIACA would seek to develop a range of products, enhance the quality of the existing product lines and target different price brackets for the cluster through market trend analysis, and design

and product development inputs. While doing so, they would take care to ensure that the essential characteristics of the Dhokra craft genre are not lost.

Objective 5: Create market linkages to multiple market segments, both domestic and export markets

Increasing the product sales and wages of artisans would depend not only on the development of new products, but also on ensuring that the new products developed can be sold at higher price points. ACCESS and AIACA would work towards linking the cluster to markets within India and in export markets, especially in the Unites States and Europe.

The above objectives would be the main criteria used in tracking the progress of the project and in evaluating the success of the intervention.

2. Intervention Strategies

In order to achieve the objectives listed above, ACCESS and AIACA would primarily use the following strategies while intervening in the cluster:

Strategy 1: Scale up existing individual artisans, entrepreneurs and NGOs

Currently, the Dhokra artisans are either working as independent workers from their homes (70 per cent) or in workshops run by entrepreneurs (20 per cent) or through a local NGO (10 per cent). Any intervention that seeks to increase the number of artisans and improve their incomes would thus have to engage with these three set-ups. ACCESS and AIACA would seek to work with the individual artisans by aggregating them into collectives, and work with the existing entrepreneurs and NGOs to help them scale up by providing them with design and product development services, marketing assistance and various other Business Development Services (BDS). With NGOs, the focus would also be on reviving the defunct SHGs.

Strategy 2: Provide raw material support, technical inputs and business development services to enable commercial sustainability and scaling up

Raw material would be made available to all the three set-ups. Some artisans' collectives would be trained in and help set up raw material banks that could be used by those engaged in production. Hand-holding and BDS support would be provided to the artisans' collectives, entrepreneurs as well as existing NGOs to help them scale up and become commercially sustainable. The main support services provided at the cluster level would be in the form of skill-building workshops for enhancing the skills of artisans, raw material availability, design and product development workshops to develop new products, and financial linkages for facilitating working capital credit. The artisans' collectives will also be provided with infrastructural and additional working capital support through the Baba Sahab Ambedkar Hastshilp Vikas Yojana (AHVY) scheme.

Strategy 3: Mobilize individual artisans into new artisans' collectives and strengthen the existing ones

ACCESS and AIACA would mobilize the existing individual artisans into collectives in addition to working with the existing entrepreneurs and NGOs. ACCESS and AIACA would work towards developing a federated organization of artisans in the cluster in the form of a producers' company or a society by Y3 so as to create a

commercially sustainable, artisan-owned production and marketing structure in the cluster. This would enable ACCESS and AIACA to mobilize and reach 1000 artisans over the project period.

Strategy 4: Create new market linkages in domestic as well as international markets
ACCESS and AIACA would work toward developing new product ranges, developing a set of marketing materials including a website and product catalogue, holding a series of exhibitions in key markets to publicize the new product profile of Dhokra cluster, and facilitating the representation of Dhokra products at trade fairs in India and abroad.

3. Interventions under the AHVY Scheme

On the basis of the above objectives and strategies, the following interventions would be needed under the AHVY scheme:

(a) Training of Artisans

Currently, most artisans are producing for the local market or supplying products to the entrepreneurs functioning in the area. Various factors such as lack of quality control, limited skill levels, inadequate designs and products, and lack of access to markets are hampering the growth of the craft. Skill-building training would thus be essential to help scale up the craft quality, production capacity, quality of products and number of artisans capable of producing quality products. In order to bring in 1000 artisans, including at least 50 per cent women, over a period of five years, almost 80 per cent of the artisans would need to be given training and skill-building inputs over the project period. ACCESS and AIACA would undertake skill-building in a phased manner. Ten training workshops would be held annually over a four-year period to cover 1000 artisans, who would be brought into the artisans' collectives.

(b) Development and Supply of Improved Modern Tools

In order to improve the productivity and incomes of the artisans improved tools and equipment would be made available to help enhance product quality and increase efficiency in the production process. These tools would be made available to the individual artisans and some common structures would be set up while also ensuring that the existing structures are optimally used by the collectives. These would be done in a phased manner in order to observe the results and to fine-tune them as the project advances and reaches out to more artisans' collectives.

(c) Integrated Design and Technical Development Project

A significant design investment would be needed for diversification of the product profile of the cluster. An integrated design and technical development project would be initiated during Y1 of the project. ACCESS and AIACA would identify appropriate designers and hold a series of workshops in the cluster to develop a number of new product ranges covering different product and market segments.

(d) Organizing Exhibitions

ACCESS and AIACA would organize a series of exhibitions in major Indian metros, test-market new product ranges and increase the sales of artisans in the

cluster. In addition, AIACA would also work on the representation of products from the cluster in existing exhibitions across the country such as the Dastkar Nature Bazaar. Selected artisans would be taken to the exhibitions so that they can directly interact with customers, obtain product feedback and also gain exposure to retail outlets in the major metros.

(e)Publicity Materials—Catalogues and Website

ACCESS and AIACA would develop marketing and publicity materials to help enhance awareness among both commercial buyers and end-consumers regarding the product profile and characteristics, and the craft production process. A website would be created for the cluster, which would be handed over for operation to the artisans' collectives. The new products developed would also be featured in commercial product catalogues, which would be distributed to AIACA's network of domestic buyers as well as importers across the world. During Y1 and Y2 of the project, the new products developed would be featured as a section in the Craftmark product catalogue. During Y3, a dedicated product catalogue for the Dhokra cluster would be developed.

(f) Entrepreneurship Development Programme

Selected artisans would be taken to participate in the India Market Readiness Programme (IMRP) organized by Aid to Artisans and AIACA in Delhi in conjunction with the India Handicrafts and Gift Fair (IHGF). Two artisans per year from the artisans' collectives would be put through the training programme every year for three years to create a cadre of trained professionals to run the collective.

(g) Trade Fair Participation

The new products developed in the cluster would be displayed at three trade fairs—IHGF, the New York Gift Fair (NYGF), and Ambiente, Frankfurt— in order to create linkages with commercial buyers and to generate bulk orders. Two artisan representatives from the collective would also be taken to the IHGF so that they can be trained in participation in trade fairs.

(h) Organizing a Computer, Printer and Internet Connection for the Artisan Society

A computer, printer and internet connection would be provided to the artisans' collectives through the project so as to enable its members to interact with commercial buyers and to generate the required paperwork for managing customer orders and sales.

(i) Warehousing and Common Workshed for the Artisan Society

Storage and office space, as well as a common workshed would be provided to the artisans' collectives under the AHVY scheme to enable the Artisan Society to start functioning and to scale up to cover a greater number of artisans.

(j) Margin Money and Credit Guarantee Support for the Artisan Society

Margin money support and credit guarantees would be provided to the artisans' collectives to enable them to raise working capital, service customer orders and scale up production over the course of the project.

(k) Salary for the Cluster Manager

A cluster manager would be hired to manage all initiatives at the cluster level, provide logistical support to Access and AIACA, and offer hand-holding support to the artisans' collectives.

4. Project Output Targets

The following would be the primary project targets over a five-year period:

- Form artisans' collectives of all the 1000 artisans.
- Ensure that 50 per cent women artisans are made members in the collectives.
- Increase the total sales revenue from a cluster to 4 crores a year by the end of the project period.
- Ensure that raw material is readily available and improved tools and equipments are used to enhance production by 40 per cent in the cluster.
- Develop 30 new product ranges.
- Link 30 new commercial bulk buyers to the project cluster by the end of the project period.
- Bring about a 30 per cent increase in the number of working days and incomes of the functioning artisans in the cluster.

5. Project Budget

The total budget for the proposed interventions over a five-year period is Rs. 1,54,65,360. Appendix 1 shows the detailed budget break-up. In addition, Rs. 12,00,000 is the budget for offering direct support to the artisans' federation formed in the cluster and the total working capital credit borrowings of Rs. 32,00,000 would be covered under the credit guarantee facility in the AHVY scheme.