

# The Making of a Sector: Handmade Paper in Bangladesh

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*In recent times, there has been much debate among development partners regarding the “correct” role – facilitator, provider, enabler, advocate, subsidizer, etc – of the various players in the development process. Over its seven years history, JOBS has focused on sector development through its vertically integrated sector development model. In so doing, we have had to wear different hats and played myriad roles. What ensues is a sample of our sector development activity which highlights the mosaic of activities which had to be undertaken to “create” a sector – Handmade Paper.*



**Handmade Paper Product.**

Handmade paper and handmade paper products represent a rapidly growing sector that lends itself well to production in Bangladesh. The following is a review of this sector in Bangladesh and the role of The JOBS Project in its development and expansion. It begins with a brief outline of JOBS and some background on the art of making paper by hand and its commercial uses. It then traces the swift development of this sector, facilitated by JOBS’ work with individual entrepreneurs to develop products, gain access to markets and finances by pooling resources through the formation of an association, coordinate services such as training, design workshops and trade fair attendance, and set up a digital presence. It highlights the results these actions have achieved and concludes by summarizing the current situation and how previous successes can be replicated and built upon.

## Background

### What is JOBS?

The Job Opportunities and Business Support (JOBS) project has worked since 1997 to assist Bangladeshi enterprises to expand their sales in domestic and

international markets. It is an integrated private sector development program funded by USAID/Bangladesh and implemented by the Center for Institutional Reform and Informal Sector (IRIS) at the University of Maryland. Its activities include identifying sectors that offer significant growth potential, selecting and building the capacity of small and medium enterprises to manufacture diversified export products, coordinating skill development training for workers, providing opportunities for world standard technical assistance, assisting in product development and improvement, developing international and domestic markets, facilitating access to loans, and assisting the government in developing a supportive policy and regulatory environment. The project also works in myriad areas of ICT including e-commerce, e-governance and e-HRD.

### What is Handmade Paper?

Handmade paper (HMP) products are made using no electronic equipment. The process involves collecting pulp on a flat board and removing excess water by hand before leaving the paper to dry in the sun. This product can then be crafted into notebooks, photo frames, boxes, bags and more, or it can simply be sold as decorative paper. The raw materials used to make the pulp represent a wide range of natural fibers and waste products, including straw, jute, water hyacinth and mulberry fibers. It is an age-old process which dates back to ancient China and produces unique and attractive designs. However, its popularity waned during the 20th century when a growing demand for paper led to the dominance of automated production methods manufacturing homogenous products on a large scale.



**Processing of raw materials for manufacturing Handmade Paper in Shambhuganj, Mymensingh.**

Special thanks to JOBS Team for their valuable input. In particular Asif U. Ahmed, Moshir Rahman, Shimona Chowdhury and Emily Shaffer.

## Why Handmade Paper?

In recent years, demand for handmade paper products has once again increased. This is due to a growing preference for environmentally friendly products and for protecting and promoting indigenous heritages. Additionally, the unique texture of the paper offers an aesthetic value that rivals industrially produced paper. Handmade paper is now seen as trendy and prestigious in a market where designer stationery is gaining popularity.

In 2002 JOBS identified handmade paper as one of the sectors having the potential to expand and possibly compensate for the predicted decline in Bangladesh's garment export sector following the phasing out of the Multifibre Arrangement (MFA) and its quotas. Several factors contribute to enhancing Bangladesh's potential to succeed in the handmade paper sector. The key ones are outlined below.

## Increasing Market Demand

International market demand for handmade paper is experiencing significant growth, as shown in figure 1. Bangladesh can therefore establish itself at the forefront of this sector as it progresses from a specialist niche to a mainstream trend with wide appeal. Producers can take advantage of the upsurge in demand and liaise with other market agents to formulate designs and locate markets when interest is at its peak. The upward trend also indicates that there will be plenty of room for enterprise growth in the future.

Figure 1

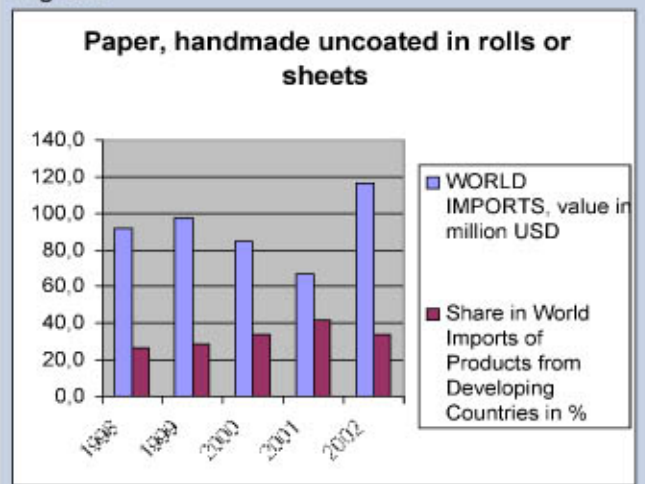
Annual growth in quantity between 1998-2002, %	Annual growth in value between 2001-2002, %
10	62
Estimation of world growth in imports of handmade paper	

Source: ITC calculations based on COMTRADE statistics

While America is dominant in the market, there are also a number of developing countries listed. Indeed, a proportion of the exports in this table would have been sold to developing countries where the paper would have been crafted into products such as greetings cards and boxes and then re-exported. For example, in 2002 Bangladesh imported US \$274,000 worth of handmade paper, some for selling on the domestic market and some for creating paper products for export.

The handmade paper sector is ideally suited to the comparative advantages of Bangladesh and other developing countries. This is emphasized by figure 3, which shows that not only is the quantity of world

Figure 3



Source: ITC calculations based on COMTRADE statistics

imports of handmade paper increasing but that developing countries have taken on a significant role in supplying that increase.

The International Trade Center UNCTAD/WTO termed handmade paper a *product champion*. This means that imports for this product have grown faster than world trade in general and developing countries have been able to outperform world market growth and thereby increase their market share. The organization states that:

Figure 2

Exporters	Value exported in 2002, in US\$ thousand
World estimation	82,482
United States of America	13,097
China	12,109
Free Zones	11,196
India	6,571
United Kingdom	4,973
Singapore	4,133
France	3,789
Thailand	3,779
Taiwan, Province of (China)	3,757
Hong Kong (re-exports)	3,211

This table shows the top ten exporters of sheets or rolls of handmade paper in 2002

*“Trade promotion efforts for these products should have a high degree of success, as there are national success stories from other developing countries that can serve as reference points.”*

Further, they advise that:

*“Promotional efforts should aim at broadening the supply capacity.”*

Since 2002, JOBS has worked to do just that. As the rest of this section outlines, the potential to succeed in the handmade paper market is inherent in Bangladesh's socioeconomic structure. JOBS is working to stimulate this potential, maximizing comparative advantages and enabling enterprises to produce on a large scale.

## Backward Linkage

There are a number of stages in the production of handmade paper, ranging from collecting raw materials and making sheets of paper to making the resulting paper into products such as cards and photo frames and finally exporting it to commercial sellers. If enterprises at each of these stages work together, there are benefits for all involved. As well as providing exporters and commercial sellers with a pool of trained producers to



Distinguished guests and participants are seen at the closing ceremony of the Handmade Paper product development workshop sponsored by JOBS.

whom they can give product specifications, it provides small producers with the security of guaranteed buyers.

This is what is meant by “backward linkage.” Enterprises throughout the chain of production are “linked” backwards from the product buyer/exporter to the initial producers. They form a “cluster” of enterprises working within the same chain of production. It is particularly suitable for handmade paper in Bangladesh since the craft was mostly undertaken by a small number of individual artisans working independently on a small scale. Individually they could not meet the demand of a large commercial buyer, but collectively it becomes possible. The decentralized nature of the production chain easily lends itself to the homogenous socioeconomic structure of Bangladesh where poorer grass root producers can easily be tapped into these backward linkages and coordinated into larger clusters, rather than having large, uncoordinated silos of production.

## Embedded Services

Backward linkages result in embedded services for the base producers. This means training and technical assistance can be provided to an otherwise resource-poor group. These services are “embedded” in the chain of production because it is in the interests of each firm that the individuals working in each preceding step have the best skills and equipment. There is an

incentive for enterprises to provide services such as training or product development to their suppliers in order to ensure that they receive the desired product. Quality products are provided as a result of the relationship between the supplier and buyer, with fees often taken out of contract prices, rather than as a commercial venture external to the supply chain.

A trickle-down effect can also be achieved as any training, embedded or commercially provided, that is given to a firm at the top of the chain will be passed on to those below it, where relevant. This aids sector development and sustainability by phasing out the need for support from donor agencies or outside business service providers.

## Raw Materials

Bangladesh is a tropical country with a rich variety of vegetation, the main raw material for handmade paper. This means the sector needn't rely on imports and can create opportunities for unskilled workers who can collect the raw materials (in contrast to Bangladesh's garment sector, which is dependent on imports for 80% of its inputs). An added advantage here is that the variety of natural fibers, such as jute, water hyacinth and mulberry fibers, help make Bangladesh's product unique, allowing for differentiation and increased international competitiveness.

## Labor Intensive

Handmade paper production is highly labor intensive. There is an abundant labor force in this country of 135 million, with 2 million unemployed entering the job market every year. Most people are living below the poverty line, have few skills and desperately need income generating activity. Hence firms can benefit



Workers mixing raw materials for handmade paper in Manikgonj.

from the considerable ease and flexibility in sourcing labor. Job creation through building a sustainable sector provides long-term relief from these problems while also supporting growth of the economy.

## JOBS Gets Involved

Prior to its decision to focus on handmade paper as a sub-sector for growth in 2002, JOBS learned about the industry and its areas of strength and weakness through working with two organizations, BRAC and Creation (PVT) Ltd.

### BRAC

Not long before setting up the cluster with Creation, JOBS teamed up with BRAC to start a production site at Mymensingh. Discussions began in 2000 with implementation beginning in the summer of the same year. Initially twenty poor rural women were given training organized and funded by JOBS, and were then employed by BRAC. The project has since expanded and now employs 100 people, predominantly women.

Since JOBS worked with the group from its formation, training was fairly comprehensive, with two courses each lasting six months designed to develop necessary skills for the workers. The training was the model later used with Creation for a basic paper making course followed by an intermediate course.

The outcome of this venture has been positive. Since the project's inception, 120 women have been trained and employed at the Mymensingh factory, taking them out of poverty and giving them a degree of financial and social independence. It has also helped to develop the handmade paper sector in Bangladesh. Given that global demand for handmade paper products is not only growing, but is unmet by current global production, any progress in establishing Bangladesh's place in the market is helpful for further development. BRAC, as an established organization with significant employment needs in its Aarong shops as well as in its offices, is in an excellent position to provide sustained employment in the manufacture of HMP products.

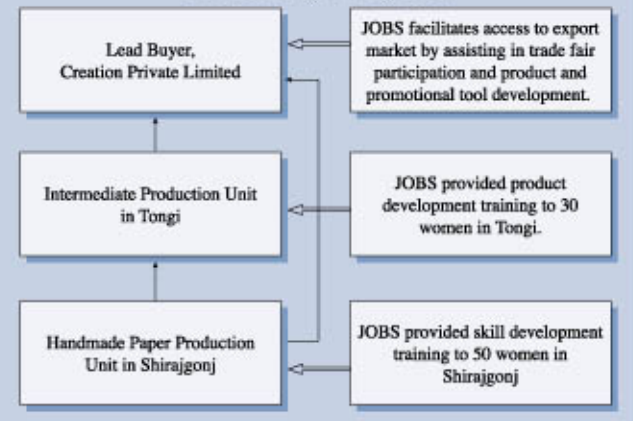
### Creation

In 1999 JOBS advertised its services in Bangladeshi newspapers. The advertisement was answered by Creation (PVT) Ltd, a handicrafts enterprise. Creation was already an established enterprise, but needed help to expand their production and export their goods abroad. JOBS facilitated Creation's participation in three trade fairs, the Spring Fairs of 2000 and 2003 in Birmingham, UK and the 2003 Tendence Lifestyle Fair in Frankfurt, Germany. With JOBS' advice and support, Creation was well-prepared to present themselves effectively at these events. Among the handicraft items displayed at the fairs were a number of handmade paper products, which helped JOBS gain an insight into the market for these goods.

In 2003, JOBS took a more direct role in the handmade paper sector when it helped Creation establish a cluster solely for handmade paper making. It provided training to women in two tiers. First, fifty women were taught basic paper making skills. Then thirty of these women were trained in intermediate production. They were taught to produce items including greetings cards, notebooks, picture frames, gift-wrap, photo albums and writing paper. These women were then employed by Creation, who exported the products.

Figure 4

#### Flow of Assistance and Production at Creation (PVT) Ltd.



Given that the industry was relatively new to Bangladesh, this linking of a lead buyer with workers who had undergone training was a significant step. It provided workers with a skill to keep them employed, which in turn provided Creation with the skilled labor that was previously unavailable to them. Now that HMP skills had successfully been transferred to a core group of workers, the program could be replicated for new employees at Creation as well as other firms.

For Creation, the intervention has been successful in two major ways. First, it has been a success in improving the disadvantaged social status and poverty of its employees. Creation shares JOBS' ethic of poverty relief through job creation. This enterprise has targeted underprivileged women, empowering them by providing training and then employment. Women working in the cluster earn Tk. 1,200 (approx. US \$20) at entry level up to about TK 4,000 (US \$67) per month for more skilled labor. This is competitive with other high-growth sectors, such as export-oriented footwear and home textiles, and higher than the pay offered by the declining garment industry. Second, this is a commercial success both in the local market and abroad. In 2002-2003, Creation sold US \$34,000 worth of goods within Bangladesh and exported US \$215,000 to the USA, UK, Japan, Germany, Sweden, Norway and France.

## Developing the Sector

Having monitored the potential of the handmade paper sector and gained insight into its operations through working with BRAC and Creation, in 2002 JOBS launched a concerted effort to develop the sector. Some of the steps identified to achieve this included:

- Identifying active enterprises and other partners.
- Combining resources.
- Sourcing technical assistance for design, development and quality control.
- Focused engagement in markets through participation in trade fairs.
- Wider marketing through the electronic media (internet).

## Identifying the Enterprises

Given that there were few existing handmade paper manufacturers in Bangladesh in 2002, JOBS searched for handicraft producers who had the potential to be successful in the handmade paper sector. Such firms were ideal candidates for developing the sector because they had some of the necessary experience. They simply lacked specific technical know-how and skilled workers. Most of them were established firms and entrepreneurs looking for opportunities for expansion. Additionally, by working primarily with exporters, an environment encouraging embedded services could be fostered whereby it would be in the interest of the client firm to provide training and other such services to the workers and enterprises in its value chain.

In order to identify individual enterprises, JOBS obtained a list of handicraft producers from the Bangladesh Handicrafts Manufacturers' & Exporters Association. From this list, eight promising enterprises were contacted after undergoing a screening process.

## Forming an Association

As a low cost industry with a significant unmet market demand, the handmade paper sector should be attractive to investors. There is the potential to gain large returns from relatively small investments. However, in order to attract investors, information should be widely and easily available, and unfortunately this is not the case in Bangladesh's handmade paper sector. Many producers work on a very small scale, often in rural villages and with little or no information available or promotion done regarding their activities or products. This hampered interest from buyers who had the potential to invest in

improving product quality. To address this problem, JOBS embarked on an effort to bring local producers into an association.

In 2002, there were about eight to ten producers of handmade paper in Bangladesh. By creating an informal association, JOBS hoped to create the mass necessary to attract larger investment (just as the mass of garment manufacturers had previously attracted outside investment). Rather than a dispersed group of artisans, handmade paper in Bangladesh could be seen as an industry worthy of international recognition. The association can be seen as an informal forum for discussion with JOBS acting as the convenor. It allows for the spread of technology because common training can be provided and ideas discussed, and for the reduction of costs in certain ventures where, by grouping together, the producers can benefit from economies of scale.

JOBS therefore contacted clients proposing the idea of an association. A series of meetings were held between interested parties at which opinions were shared as to how they could work together and proposals were drawn up as to what action was needed. The result was an association of nine producers, with JOBS acting as convenor, and a two year plan outlining activities, including attending trade fairs, obtaining a designer from the EU, providing design workshops and setting up a website.

Individual producers derive many benefits from grouping together in clusters. The raw material procurement cost is reduced by 30 to 35%; one representative cluster's production cost was reduced by 67% because they did not have to invest in land and machinery individually. The rejection rate of products by the lead buyer was reduced by 10 to 15% on average because of their systematic production system. Similarly, the marketing cost decreased by 25%.

The producers meet monthly to discuss progress and future plans, and in its current form the association can be seen as a forum for exchanging ideas and organizing programs with JOBS' facilitation. The association has not yet been formalized because when it was first convened the priority was to establish a critical mass for promotional purposes and pooling resources for collective training and development programs. The emphasis was on acting sooner rather than being hindered by the extra administrative work involved with the formalization process. However, now that it has progressed and become more established, the association is in the process of making its status official.

## Training and Design Development

JOBS developed a training scheme for its clients consisting of five distinct stages. A basic level course offered to enterprises with no previous experience in the industry equips workers with the necessary skills to make two or three types of paper. They are taught everything from pulp preparation of different fibers to forming and drying the paper sheets. For slightly more established enterprises or those who have already taken the basic level course, an advanced level is provided that builds on the knowledge taught in the basic course. New sorts of papers are introduced using different materials and participants learn about quality control, safety in the workplace and how to reduce wastage.

These two courses transform unskilled workers into adept manufacturers of handmade paper, not only proficient in production methods, but conscientious in their work and aware of the importance of ensuring a uniform standard of quality.

A product design course has also been developed, with a focus on identifying and utilizing local strengths. Trainers work alongside supervisors to determine what raw materials are available locally and use these to develop a new range of products. These products are then analyzed and tested as to their profitability on the global market. Through this training, enterprises can create products that both exploit their local comparative advantage and will be popular in world markets. Further, supervisors gain an insight into the design process and an improved understanding of the market in which they operate.

Another course provided for supervisors concentrates solely on quality control. Lasting 15 to 30 days, it focuses on the final stages of production and the packaging of the final product. It teaches participants about the standards buyers are looking for and how to ensure uniform quality and appearance for all products. By the end of the course, supervisors are equipped to make the final decision as to whether to reject a finished and packaged product or to approve it for sale.

More recently, product development process training has been introduced for enterprises that are well established and experienced after operating in the sector for the last year or two. It teaches participants about a systematic process to develop new products. By understanding every stage of the development process, from the initial design drawing to the making and testing of a model, supervisors are provided with a greater understanding of manufacturing as well as the HMP industry. This aids them in their decision-making and cost-benefit calculations and increases their



**Participants seen in the Product Development Training by DTC.**

autonomy by improving their market information and understanding.

JOBS is keen to offer the best expertise available through its training courses. Over the years, it has sourced various trainers from Bangladesh, India and Japan. In its latest effort, JOBS put on a design workshop as part of product development process training in collaboration with a German design school eager to help in the handmade paper sector. Three German designers from Design Technology Center (DTC) came to Bangladesh in March 2004 and, along with six designers from local HMP firms, taught enterprises about the designs best suited to Western markets in a two week long advanced technical training course. JOBS paid US \$1,000, the participants paid US \$100 per person (US \$600 in total), and DTC, with funding from the German government, paid US \$10,000 for the training. Per person per day the cost was about US \$138.

There are different cost breakdowns for each of the training courses, each available with specific contracts. For example, basic skill development training with the NGO SEDS for handmade paper workers cost Tk. 182,400 (US \$3,145). This was a three month long training course for twenty workers. In this case, JOBS paid US \$2110, representing 67% of the overall cost, and SEDS paid US \$1,035, or 33% of the total cost. Per person, the cost for this training was US \$157.25 for 90 days, or US \$1.75 per person per day. The total cost of more advanced skill development training with BRAC (for those who had already received the basic skill development training) was US \$4,200. The training was for 30 workers for 120 days, and JOBS provided 50% of the cost. Per person per day the cost for this training was US \$1.16.

## Trade Fairs

The most effective way to gain international market access is to participate in a focused trade fair. Not only does this introduce the product to myriad buyers, it also assists the enterprises in their understanding of the market, its trends, and the tastes of its consumers. Through displaying products and networking with others in the industry, there is the potential to develop brand recognition and raise awareness of product offerings, as well as to secure buyers and contracts for supply.

Figure 5. Trade fairs attended by JOBS showcasing handmade paper products.

	2002	2003	2004
	Spring Fair, Birmingham, UK	Tendence Lifestyle Fair, Frankfurt, Germany	Spring Fair, Birmingham, UK
Enterprises attending	Creation Pvt. Ltd.	Creation Pvt. Ltd.	Nandan SEDS Creative Paper Craft
HMP Sales from Spot Contracts	\$20,000	\$25,000	\$1,000,000
Significant contracts	Japan Museum	Toyota	Beata Thackery Ltd.

Note: The 2004 trade fair was the first at which multiple handmade paper clients attended with JOBS. During the first three trade fairs, Creation (PVT) Ltd. was a handicrafts enterprise that sold handmade paper only as a line item. It only established its handmade paper products on a large scale after the 2003 trade fair.

At each fair JOBS provided approximately US \$12,000 for a stall, which was shared by all of its participants (as listed in figure 4), and provided expertise on product selection, promotion and stall presentation. All other expenses, including travel, were underwritten by the companies themselves. JOBS also gave advice on the firms' promotional brochures and digital catalogues. The most recent trade fair was the 2004 Spring Fair in Birmingham, UK. This was the first fair to which JOBS took a significant number of handmade paper clients. JOBS spent US \$12,886 on stall charges and related promotions, as well as US \$4,062 on a budget for an event manager for the groups. The clients themselves shared the cost of US \$18,000 for additional promotions, sample development, freight forwarding, air travel, lodging and meals. It proved to be a hugely successful undertaking, with each of the clients gaining at least one buyer and networking with others in the industry to make useful contacts. As shown in figure 4, four enterprises attended the fair with JOBS and achieved initial sales of US \$1,000,000. Most notably, a contract with Beata Thackery Ltd, a Japanese company specializing in handmade paper products, was secured.

The success was due largely to experience gained from previous fairs and thorough advance preparation to ensure effectiveness of all areas of promotion. The fairs have been progressively more successful as

JOBS' understanding of the market has improved and designs have been developed to suit buyers' needs. The first three fairs were met with limited success in terms of securing buyers, but helped gain an insight into the market as well as some direct contact with buyers and other sellers. The Birmingham Fair in 2004 was more successful, with significant export contracts gained, and JOBS hopes to continue this success at the 2005 Spring Fair.

## Web site

JOBS, in close collaboration with association members, is currently constructing a handmade paper website aimed primarily at the international market.

Figure 6. Website for HMPA in Bangladesh



The first of its kind in Bangladesh, the website will provide easily accessible information regarding suppliers, products, and markets and general information about handmade paper, its history and traditional production processes. For a relatively new industry such informational tools are invaluable for buyers and sellers alike. The website will allow dispersed producers, each working on a small scale, to be represented under a common umbrella. It will also be an important tool for buyers and investors as it will provide clarity on the sector and facilitate contacts with suppliers.

Initially the website is being funded by USAID through JOBS, but once established members of the association will also contribute, ultimately covering the full cost themselves. The main costs are the annual domain registration of Tk. 1,800, or US \$30.50, and the annual hosting cost of Tk. 3,500 (US \$59) for a 25MB local server or US \$192 for a 300MB US server. Other development and maintenance costs are absorbed by salaries paid to JOBS' IT staff, but would add up to about Tk. 72,000, or US \$1,220.

The website will be included in overall and industry-specific search engines, and JOBS is developing a three year plan to promote the site to the target audience, including advertising in major industry trade magazines, putting ads in major international trade fair brochures and sending promotional letters to handmade paper product importer associations and their members in target countries. There will be specific monitoring tools to measure the success of the website, such as number of registered members, total number of hits and number of queries from potential buyers. There is huge potential for expansion through links with related websites and a public relations focus on the role the association plays in combating rural poverty and the



Woman sorting finished products.

status of women in Bangladesh. Its basic role is to provide information and its scope can be increased to widen its audience and increase accessibility.

## The Current Situation

In 2000, JOBS' overall investment in the HMP sector was approximately US \$10,000. It was almost the same in the year 2001, while in 2002 investment increased to US \$20,000. In 2003, it was almost US \$30,000 with product and designer development training added to technical training, as well as increased trade fair participation. JOBS expects investment in 2004 will be approximately US \$35,000 or a little more.

**Since the start of its intervention with multiple handmade paper enterprises JOBS has helped increase both employment and sales of its clients. It has trained more than 300 people and provided them with jobs in which the average wage ranges from Tk. 1,200 per month (US \$ 20) to Tk. 4,000 taka (US \$67). A total of 1000 workers are now employed in the sector of which 90% are women. It has established an active association whose membership has risen from eight to fourteen, and in 2002 helped these clients obtain sales contracts worth nearly US \$300,000. Total sales for 2003 were approximately US \$700,000, expected to reach US**

**\$1.8 million to US \$2 million in 2004. It can be seen that JOBS' investment has resulted in spectacular returns. It is significant that many of the other costs have been absorbed by the clients themselves, underlining the potential for self-sufficiency and sustainability of the sector.**

However, there is more to be done. JOBS has helped form a basis for establishing an internationally competitive handmade paper sector in Bangladesh, but it is important that past successes are built upon in order to sustain the industry.

For instance, while the design and quality of products has improved to a standard that is gaining international attention, the unique and changeable demand for paper products means more workshops and linkages in this area are necessary to keep clients competitive and to sustain the interest that is starting to appear. Differentiated product lines and designs as well as promotional methods for expanding export markets are all important areas for investigation to perpetuate and sustain Bangladesh's handmade paper industry.

## Next Steps

Among the many plans for the handmade paper sector, three are currently being prioritized:

- JOBS is currently forming a five year plan with the association in order to ensure its continued operation and establish long term plans for development of the sector, including formalizing the association.
- Contact with the German Design and Technology Committee is being maintained so that the success of the design workshop in March 2004 may be repeated.
- Identifying markets is a major focus. This involves finding new places in which there is an unmet demand or the potential to create demand for handmade paper products.

Additionally, a number of goals have been identified:

- By 2007, it is anticipated that 35 to 40 enterprises will be involved in the sector.
- Expected employment for the whole handmade paper sector value chain is approximately 5,000 by 2007.
- Total export earnings expected from the sector by 2007 are US \$30 million.
- By 2010, following implementation of proper initiatives, the sector could very well represent a major export earner for Bangladesh. ■