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REPORT OF THE PROJECT

ON

WOMEN IN GLASS INDUSTRY
AT FIROZABAD

CENTRE FOR SOCIAL RESEARCH
C-4/68, S.D.A., New Delhi
REPORT OF THE PROJECT

ON

WOMEN IN GLASS INDUSTRY AT FIROZABAD

CENTRE FOR SOCIAL RESEARCH
C-4/68, S.D.A., New Delhi
# A REPORT

| Project                      | Centre for Improvement of Glass Industry  
|------------------------------|---------------------------------------------
| UNDP/UNIDO Project DP/IND/ 90/010 |
| Location                    | Firozabad City (Uttar Pradesh)             |
| Reporting Period            | June, 1995                                 |
| Organisation                | Centre for Social Research                 |
| Address                     | C-4/68, Safdarjung Development Area        
|                             | New Delhi 110016                           
|                             | Tel. 6855837                               |
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| Consultant                  | Mrs. Kamla Nath                            |
| Research Associates         | Dr. Abha Chauhan                           
|                             | Ms. Milly Chatterjee                       |
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# ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDGI</td>
<td>Centre for Development of Glass Industry</td>
</tr>
<tr>
<td>CSR</td>
<td>Centre for Social Research</td>
</tr>
<tr>
<td>ICCW</td>
<td>Indian Council for Child Welfare</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organisation</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
<tr>
<td>UNIDO</td>
<td>United Nations Industrial Development Organisation</td>
</tr>
</tbody>
</table>
LOCAL TERMS

Belan - rotating

Bhagar - sorting of broken bangles.

Cuttai - cutting.

Ginai - Counting.

Hil - gold polish.

Jagaia - contractor.

Jurai - joining.

Mutha - taking out glass balls from the pot furnace.

Pakai Bhatti - oven for final bangle processing.

Purai - sorting and making 'torahs.'

Sadai - levelling of two unjoint sides of a bangle.

Tarkash - person throwing wire on the rotating rod.

Torah - is equal to 13 dozens of bangles.

Zari - Liquid made of gold powder.
SUMMARY OF THE REPORT

Under the Project IND/90/010 - CIGI Firozabad, UNDP/UNiDO commissioned a baseline survey to Centre for Social Research. This constituted Phase I of the study in which women’s contribution in the glass industry and assessment of their developmental needs have been identified. A Plan of Action based on need assessment has been prepared to be implemented in Phase II. The Plan will focus on improvement of living and health conditions for women, organizing educational and skill development programmes for them and their implementation.

The survey is based on the data collected through the primary and the secondary sources. The secondary sources included consultation of census data, reports of two individuals, CDGI Newsletter and information based on discussions with the staff of CDGI and the Labour Department, factory owners, Directors of the NGOs and the Trade Union leaders.

Chapter I deals with the distribution of work, types of work, working hours and work rates of women and men engaged in the glass industry. In Firozabad, out of total workforce of 2,20,000 in glass industry, women are 20,000-22,000. Of the total women workforce only about 1000 are in the organized sector doing mostly unskilled work and the rest in the unorganized sector. There are approx. 400 units (CDGI) making glass products, of these large majority are engaged in bangle making in which the majority of women workforce is concentrated. In the organized sector women do only Bhagar work (sorting of different coloured bangle pieces) in factories while in the unorganized sector they do different types of work in bangle making: Sac′ai (levelling), Jurai (joining), Cuttai (cutting), Hil (gold polishing), colouring, putting Zari, apart from doing other works like beads work and mounting of bulbs.

Data on identification of socio-economic needs of women was collected with the help of a representative sample of 200 women selected on the basis of the type of work they do in the bangle making, covering all sections of the society. These women were interviewed on the basis of an Interview Schedule prepared for the purpose.

The economic and social status of women and their families has been analysed. Their contribution to the total family income varies from 18 - 47 % in the unorganized sector and is 60 % in the organized sector. It is seen (Chapter I) that work done by women is less skilled, lower paid and more hazardous for health than work done by men. The analysis of the social status of women shows that a large number of women are illiterate. While in the organized sector the literacy rate is nil, in the unorganized sector it varies from 1.6 - 20 %. The main health problems identified for women working in the industry are related to eyes, lungs, pain in legs and spine, acidity and gynaecological. Most of these problems
are due to poor nutrition, long working hours with exposure to extreme climatic conditions and lack of provision for basic facilities particularly related to family planning. (Chapter II)

Roles of CDGI and NGOs in development of glass industry, their training programmes and assessment of these by women interviewed and the factory owners and views and suggestions offered thereby for their improvement have also been analysed (Chapter III).

Needs of women have been identified and assessed on the basis of data analysed are related to: basic amenities, regular source of income, facilities at the workplace, adult education and an Education Centre for girls, more schools for children, training programmes related to glass products and other income generating activities, medical facilities, Creche for the children of working mothers and pension for old widows. (Chapter IV)

A suggestion for an Action Plan for Women in the Glass Industry at Firozabad focuses on the need to organize women into Collectives through which the development and training programmes could be launched. The programme should be undertaken by an NGO like CSR in coordination with other local NGOs and support from UNIDO.
REPORT ON
WOMEN IN GLASS INDUSTRY AT FIROZABAD
UNDER PROJECT DP IND /90/010/- CIGI FIROZABAD

INTRODUCTION

A project for development of improved technologies in the glass industry has been in operation in Firozabad since 1990. The project is a joint venture of Government of India, Govt. of U.P. and United Nations Development Programme. Under the Project, in order to identify women’s contribution in the industry and their development needs, UNDP/UNIDO commissioned a baseline study to the Centre for Social Research in March 1995.

The Study, Phase I of the programme planned for women in the glass industry, consists of the socio-economic review of the status of women in glass industry, identification of their needs and an outline of Plan of Action to be adopted by CSR in coordination with CDGI and other local NGOs.

Based on the need assessment of the women identified under the study, UNIDO proposes to launch Phase II, a programme for improvement of women’s conditions in the glass industry under the above project. Phase II would focus on the improvement of their living and health conditions, educational levels and the role of organizing social and skill development programmes for women and their implementation on the basis of the Plan of Action prepared in Phase I.

For the socio-economic survey of the condition of women in glass industry of Firozabad, CSR started its field work early in March. The team consisted of one consultants, two senior researchers and two field investigators (hired for the period of field work only). The data was collected on the basis of secondary and primary sources. Three field visits were undertaken in two months time period. The census data and concerned reports and government documents were consulted. A sample of 200 women was drawn and interview schedule was prepared for the purpose. Besides this, information was collected through discussions with factory owners, the officials of Labour Department, Trade Union leaders and the Directors of the NGO’s operating in Firozabad.
CHAPTER I
THE PRESENT STATUS OF WOMEN
IN THE GLASS INDUSTRY

Firozabad known as ‘Kanch Nagar’ (glass city) is located about 250 k.m. from Delhi in the state of Uttar Pradesh. It produces about 75% of glass manufactured in India. The environment of the city is very congested, polluted and unhygienic due to poor drainage system, lack of sufficient toilet facilities and factories situated in the middle of the residential areas.

There are nearly 50 medium and large scale manufacturing units in the organized sector and about 600 units in the unorganized sector of Glass Industry in India. In Firozabad the number of registered units vary with different sources. According to the Labour Department there are 359 registered units:

- Bangle-Making Units: 165
- Blowing Glass Units: 81
- Block Glass Units: 62
- Glass Beads: 19
- Glass Potteries: 32

However, it was referred by the Labour Department that the number registered with General Manager District Industrial Centre (GMDIC) is about 425 units. As per the information provided by the Centre for the Development of Glass Industry (CDGI) there are about 400 registered units manufacturing bangles, table wares, lamp shades, bulb shells etc. Besides, nearly 4000 cottage units are engaged in intermediate process of glass cutting, decoration and annealing.

According to 1991 Census the total population in urban Firozabad is 77,053. According to the Labour Dept. office in Firozabad the total workforce in glass industry is 2,20,000 approximately of which 20,000-22,000 are women. The approximation is due to no exact figures available for women working in the home based unorganized sector.

Though there are about 400 registered units, (CDGI) about 100 operates at a time. In one unit a total of 150 labourers work at a time out of which only 6-7 are women engaged in sorting or separating different coloured pieces of broken bangles. The total factory labour is about 90,000, of which 1000 are women.
Distribution of Work in Bangle Industry: Women and Men

Women work only in those factories which make glass bangles. In these factories, a wide range of bangles decorated with different coloured glass, cut work patterns, as well as with liquid gold are produced. The works like heating pot furnace, melting of glass in different pots, drawing, shaping, colouring and carrying of glass to required places, throwing and rotating and finally cutting, sorting and making bundles of these bangles are the activities of men. Once the bangles are taken from the factories to the godowns or the houses women come into picture working at various stages till the bangle is finally ready to go to the ‘pakai bhatti’ (small ovens for final processing) and then to the wholesalers and the shopkeepers who again are only men.

The women working in the factories are recruited mainly through a person called ‘Jagaia’ (contractor) who has the responsibility of bringing the labourers to the factories. Sometimes they come through their contacts with the male members working in the factories or other women relatives from their locality. In the unorganized sector women are employed through family networks and personal approach.

The unorganized sector comprises of nine types of work:

1. Bhagar - refers to sorting of coloured broken bangles, a highly unskilled job done by women only.
2. *Sadai* - is levelling of bangles in which two unjoint sides of a bangle are joined and is done by mainly women and also children at times in their homes.

3. *Jurai* - means joining of bangles after they have been levelled. The work is done mainly by men and children. In most of the households wife do the 'Sadai' work while the husband do the 'Jurai' work.
According to the Labour Dept., the total number of people in Jurai and Sadai work is 40,000. It consists of:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>10,00</td>
</tr>
<tr>
<td>Women</td>
<td>15,000</td>
</tr>
<tr>
<td>Children</td>
<td>15,000</td>
</tr>
</tbody>
</table>

4. Cuttai - refers to designing of glass bangles by cutting them and is done by both men and women but mostly by men and also some children.

5. Hil - means gold polish. A large number of women are engaged in polishing of bangles with pure or mixed gold. Few men are also engaged in this work.
6. *Colouring* is done mostly by women on bangles using different colours, prepared by women themselves.

7. *Zari* is put on bangles in the form of liquid made of gold coloured powder. The work is usually a women centered one.
8. Beads work - includes making of glass beads ornaments at home by using simple tools by which the glass rods are cut and shaped into beads.

9. Mounting of bulbs - is done by some women at home in which a small wire is fixed to another bigger wire to be used inside the bulb.
According to the Labour Dept. the total number of women in the unorganized sector can be classified according to their participation in work in the following manner. Except for the last work all others are related to the bangle industry.

Table 1:

Women Workforce in the Unorganized Sector

<table>
<thead>
<tr>
<th>Work</th>
<th>No. of Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sadai (some Jurai)</td>
<td>= 15,000</td>
</tr>
<tr>
<td>Hil</td>
<td>= 2,000</td>
</tr>
<tr>
<td>Polish &amp; Zari</td>
<td>= 2,000</td>
</tr>
<tr>
<td>Bhagar (godwons)</td>
<td>= 1,000</td>
</tr>
<tr>
<td>Mis. (bulb mounting, beads</td>
<td>= 1,000</td>
</tr>
<tr>
<td>etc.)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>= 21,000</td>
</tr>
</tbody>
</table>

Working Hours and Work Rates:

Most activities done by women are paid at piece rate basis. The piece is calculated according to ‘torah’. (one torah is a bundle of 13 dozen bangles, each dozen consists of 24 bangles). Wage rate per torah varies according to the polish and quality of bangles.

Sadai work primarily done by women, in the evening till late at night and early morning from 4 a.m. to 8 a.m., is paid at the rate of Rs. 2-3 per torah only. Joining done mainly by men, preferably in the mornings and evenings is however paid at the rate of Rs. 4.72 per torah. Cuttai work is done mostly by men at the rate is Rs 6-7 per torah. Bhagar work in the factories as well as in the godowns done by women only for 8 hours from 9 a.m. till 5 p.m. is paid at the rate of is Rs. 30-35/- in factories and Rs. 10-12 in the godowns.

The other works in the bangle industry done by men are paid as follows :- Mutha-the one who takes out glass ballls from the pot furnace.gets Rs. 80-90 for 8 hours; the person who rotates Belan is paid Rs. 220 for 4 hours; Tarkash - a person who throws wire on the rotating rod, gets Rs. 300 for 8 hrs. These are the most strenuous job done in the midst of extreme heat and require fast rotating and fine handling. A worker cannot sit in the extreme temperature for more than four hours in a day. The work of separating each bangle by cutting the spiral, and that of Ginai (counting) and Purai (sorting and making torahs according to different sizes) is done for 8 hrs. and are paid Rs. 110, 95 and Rs.65 respectively.
It is clear from the above information that:

- women are concentrated mostly in the unorganized sector.
- they work only in the bangle making units.
- they work for equal or more number of hours and get less money both in the organized and the unorganized sectors. For instance the work of Cuttai done mostly by men is thrice as well paid than the Sadai work done by women.
- the works which women do require no formal training and/or education.
- the work done mainly by women like Sadai is much more harmful and injurious to health than those done by men like Cuttai or even Jurai. It involves sitting in closed rooms with no ventilation and kerosene lamps burning resulting in suffocation and breathing problems.
CHAPTER II

THE SOCIO-ECONOMIC SURVEY:
DATA ANALYSIS

The data on women in glass industry at Firozabad was collected from the secondary and the primary sources.

The secondary sources included consultation of Census data, CDGI reports and Newsletter, earlier surveys conducted by two individuals (Dhamija and Suman) and information provided by the Labour Dept., Firozabad. The information given in Chapter I is based on the secondary sources.

The identification of socio-economic needs of women working in the Glass Industry and to assess possibilities of introducing improved technologies in tasks performed by women in the industry and to identify women who can be trained in the training programmes already being conducted by CDGI team, a field survey was conducted by CSR team. The team also investigated the work being done by local NGOs and the prospects of developing a larger programme for social and economic improvements in the conditions of women. The report is based on interviews with 200 selected sample of women with the help of structured interview schedule. The data was collected on views of women, factory owners, trade union leaders, NGOs etc. about the CDGI programme and how it can be used by the industry most effectively.

A sample of 200 women was taken which covered various steps of work done by women in glass bangle units. The percentage of women included in the sample however is 10% from the organized sector and 90% from the unorganized sector. There is no information about the exact number of women doing different works in the bangle making. On the basis of our observation and some information from the Labour department, a representative sample concerning all types of work done by women was selected to give a picture of their condition in general in glass bangle industry at Firozabad.

An interview schedule (copy enclosed) was formulated to conduct survey about the status of women in the glass industry and for the assessment of their needs and problems. The interview schedule had both closed and open ended questions related to their work, family, community and society.

Apart from focussing on these questions we also kept an interview diary to have an indepth understanding of their specific problems. Our method has been an informal, participatory and free-associational one. We observed them while engaged in their activities and also participated in their activities. Such participatory approach not only helped in developing rapport with the women but also in understanding the condition in
which they work. The survey with this approach also enabled us to identify girls - women for training under the CDGI training programme. Their attitude towards training and the necessary conditions for undertaking the training form a part of this report.

Apart from these women, we also interviewed some of the factory owners and the directors of the NGO's and trade union leaders to get their opinions about the condition of women in the glass industry and also of the activities of CDGI.

Economic Status of Women and their Families

As mentioned above approximately 22,000 women work in the Glass Industry, both in the organized and unorganized sectors. However, only 1000 of these women are employed in the organized sector. These women do highly unskilled job of Bhagar which is temporary in nature and comprise women from neighbouring areas of Firozabad. Some of those women who are engaged in Sadai and Jurai work also come from outside the town. Those doing work like polishing especially gold polish or Zari work are the local people.

The selection of the chosen households for interviews was according to the kind of work they do and the community to which they belong. The sample included 180 women from the unorganized sector and the rest 20 women from the organized sector. Workwise distribution of the number of women in the sample is as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>No. of women</th>
<th>Proportion in the sample (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organized</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bhagar</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td><strong>Unorganized</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bhagar</td>
<td>25</td>
<td>12.5</td>
</tr>
<tr>
<td>Sadai</td>
<td>54</td>
<td>27</td>
</tr>
<tr>
<td>Jurai</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>Cuttai</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Hil</td>
<td>28</td>
<td>14</td>
</tr>
<tr>
<td>Beads</td>
<td>7</td>
<td>3.5</td>
</tr>
<tr>
<td>Colouring</td>
<td>24</td>
<td>12</td>
</tr>
<tr>
<td>Zari</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Mis. (bulb mounting,</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>cleaning bhatti etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>200</td>
<td>100</td>
</tr>
</tbody>
</table>
Women in the Organized Sector

Women in the organized sector work only in Bhagar i.e. separating of different coloured glass bangle. They earn Rs. 30-35 /day for 8 hours of work. They do not work on sundays and festivals and therefore work not for more than 24 days a month. These women are mostly old widows or divorcees and are left by their grown-up sons to fend for themselves. They earn Rs. 720 per month which forms 60 % of the total income of the family which is about Rs. 1200.

Women in the Unorganized Sector

In the unorganized sector women’s contribution to the family income varies from 18-47 %. The average income per family for all types of work is nearly 2000 and women’s average contribution to the family income is Rs. 512 i.e. more than 25%. The unskilled work of Bhagar in the godowns is least paid job i.e. only Rs. 10-12/day for 8 hrs. The Cutta work is very well paid where one person earns Rs.40-50 /day. But this work is done mainly by men. In polishing, gold polish of a high quality is paid Rs. 8/torah and a woman is able to earn about Rs. 60-70/day. But Hil polishing is of various types and women especially the young girls are paid one half of a rupee to Re. 1/torah and can earn Rs. 25/day.

The contribution of children engaged in various types of work related to Glass Industry is substantial. Their average contribution to the family income varies from 3 to 58.2 %. Table III gives a picture of economic status of women and their families and children’s contribution to the total family income.

Table III
Economic Status of Women

<table>
<thead>
<tr>
<th>Type of work</th>
<th>Average Family Income (monthly)</th>
<th>Percentage Contribution of Women’s income</th>
<th>Percentage Contribution of Children’s income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bhagar</td>
<td>712</td>
<td>37</td>
<td>7.5</td>
</tr>
<tr>
<td>Cutta</td>
<td>3158</td>
<td>23</td>
<td>3</td>
</tr>
<tr>
<td>Colouring</td>
<td>1550</td>
<td>42</td>
<td>16</td>
</tr>
<tr>
<td>Jurai</td>
<td>1786</td>
<td>32</td>
<td>16</td>
</tr>
<tr>
<td>Zari</td>
<td>1626</td>
<td>21.5</td>
<td>45</td>
</tr>
<tr>
<td>Hil</td>
<td>3291</td>
<td>27</td>
<td>15.3</td>
</tr>
<tr>
<td>Sadai</td>
<td>1217</td>
<td>32</td>
<td>58.2</td>
</tr>
<tr>
<td>Beads</td>
<td>3060</td>
<td>18</td>
<td>42</td>
</tr>
<tr>
<td>Mis.</td>
<td>1352</td>
<td>47</td>
<td>8.13</td>
</tr>
</tbody>
</table>

Source: Survey Sample Data, CSR.
Most of the women live in rented house paying Rs. 100-250 per month, while some stay under the sheds provided by the godown owner. Women engaged in polishing however have their own houses as they are locals. Nearly all women said that they are unable to feed their family and need extra income for food, clothing and medicine. They face problem in getting fuel and other necessities. Bhagar women working at the godowns are worst hit owing to their extremely low pay. Some of them do not have clothes to change and cannot even afford a square meal a day. Their children run around bare-foot earning Rs. 5-6/day.

Social Status of Women

Of the total female population 17.3 % are engaged directly or indirectly in the Glass-Bangle-Making Industry. Women who work as 'Bhagarwalis' both in godowns and factories are Muslims while those engaged in work like Sadai and Jurai are both Muslims and Hindus from scheduled castes and backward classes. However women doing Hil work are all Muslims confined within the four walls of the house.

Education - The proportion of literate women who work in the bangle industry varies from 1.6 % in Sadai work to 20 % in work of putting colour. Table IV depicts the rate of literacy of women workers and their families.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Family (%)</th>
<th>Women (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bhagar (factory)</td>
<td>7.4</td>
<td>-</td>
</tr>
<tr>
<td>Bhagar (godowns)</td>
<td>6.9</td>
<td>2.6</td>
</tr>
<tr>
<td>Cuttai</td>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td>Colouring</td>
<td>50.8</td>
<td>20</td>
</tr>
<tr>
<td>Jurai</td>
<td>21</td>
<td>2.8</td>
</tr>
<tr>
<td>Zari</td>
<td>17.8</td>
<td>5.4</td>
</tr>
<tr>
<td>Hil</td>
<td>58.3</td>
<td>8</td>
</tr>
<tr>
<td>Sadai</td>
<td>9.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Beads</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>Mis.</td>
<td>20</td>
<td>2</td>
</tr>
</tbody>
</table>
At present 5 schools are running for the benefit of the children working in the Glass Industry by Indian Council for Child Welfare. These schools provide one meal a day with a monthly stipend of Rs. 100. There are 500 students out of which 120 are girls.

**Health**: Women working in Bhagar and Sadai work have more health problems than those engaged in Hil or Jurai and Cuttai work. The main health problems of women engaged in Bhagar, both in factories and the godowns are related to eye, lung and pain in legs and spine. In factories out of 20 selected in the sample, 13 have eye problem and equal number of them suffer from legs and spine pain. In the godowns, out of 25 women, 14 have eye problem. 8 male members in the family of these women have T.B. or lung problem. The women here have to constantly gaze at broken pieces of bangles which affect their eyes while carrying of these in baskets results in pain in their body.

The data analysis shows that in Sadai work out of 54 women, 28 have some or the other serious health problem. The main problem is related to eyes which includes low visibility and watering of the eyes. Apart from these, there are problem relating to acidity and gynaecological disorder due to poor nutrition, frequent pregnancy and child birth. The constant exposure to excessive heat in the factories also adds to the gynaecological problems. Epilepsy, lung and T.B. to some extent is also existant. Men suffer more from lung and T.B. problem due to their continuous exposure to the factory environment and drinking habit. It is seen that women suffer from acidity/stomach problem because of inadequate food and too much exertion. The health condition of women doing Hil work is not as bad. A few of them i.e. only 8 out of 28 have some or the other problem like muscular pain, eye problem, acidity and gynaecological disorder. In Jurai and Sadai works the workers are more affected by T.B. and eye problem.

There are no provisions for medical facilities either from the side of the factory owners or the government as 99% of the labourers work on daily wage basis. There is Employees Slate Insurance (ESI) Hospital with a mobile van. But due to lack of its effective functioning and availability, the workers entitled to the services of ESI go to private doctors for their treatment. The rest of the workers also avail the facilities of the private doctors according to their economic condition. As their problems are much greater than they can afford, a large number of them either take advance from the employers or loan from moneylenders. Many of them expressed their inability to pay back these loans, while some said that they forgo the treatment. Women give preference to their family members over their own health and avail the treatment for themselves only as a last resort. They feel more responsible and concern for their families which increase their own problem.
CHAPTER III

CENTRE FOR THE DEVELOPMENT OF GLASS INDUSTRY (CDGI) AND NGOS IN FIROZABAD

The CDGI was registered as a Society in May 1992 for the upgradation of technology and modernization of the glass industry in Firozabad. Since May 1994, the Centre started three training courses to improve the technical skill of the people engaged in glass industry. These courses are: (a) Toy Making (b) Design & Decoration of Glass (c) Laboratory Practice.

Table V
Training Programme of CDGI:

<table>
<thead>
<tr>
<th>Course</th>
<th>Duration</th>
<th>Fees (Rs.)</th>
<th>Qualifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toy Making</td>
<td>4 months</td>
<td>400</td>
<td>5th Standard</td>
</tr>
<tr>
<td>Design &amp; Dec.</td>
<td>6 months</td>
<td>900</td>
<td>8th Standard</td>
</tr>
<tr>
<td>Lab. Prac.</td>
<td>10 weeks</td>
<td>2500</td>
<td>B.Sc.(Chemistry)</td>
</tr>
</tbody>
</table>

The CDGI is planning to start a new course in Screen Printing in which preference would be given to women. Table VI gives an idea of the number of participants in the CDGI training programmes.

Table VI
Number of Participants in the CDGI Training Programme

<table>
<thead>
<tr>
<th>Course (earlier)</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toy Making</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Design &amp; Dec.</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Lab. Prac.</td>
<td>21</td>
<td>--</td>
</tr>
<tr>
<td>do - (current)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toy Making</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Design &amp; Dec.</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Lab. Prac.</td>
<td>6</td>
<td>--</td>
</tr>
</tbody>
</table>
Assessment of CDGI Programme according to Respondents

Women: 99% of women interviewed have not heard about the training programme being conducted by the CDGI. When given the detailed information about it, most of them expressed their inability to pay any fees although confirming the willingness to undergo the training programme with some sort of a monthly stipend along with their work.

Factory Owners: On the basis of the conversation with the factory owners especially of the bangle factories, it is revealed that so far the factory owners have not benefitted from the CDGI programmes. Their views are that:

- there is no representation of the bangle factory owners' association in the Governing Body and the Executive Council of the CDGI. Only the glass-ware industry association is their member.

- the Laboratory Testing facility provided by the CDGI, they feel is beneficial to the big factory owners who buy chemicals in bulk and consequently can minimize their cost. But even the glass-ware factory owners feel that the testing charges are too high and they could not afford to use the facility.
the seminars organized by the CDGI for providing expertise information relating to quality improvement and export of glass products according to the interviewees is a wastage of time. The medium of instruction is English which the majority cannot follow. They think, too much of theoretical information is given rather than the practical demonstration. They suggested that prior consultation with them is necessary before organizing such seminars.

some designs developed by the CDGI are too expensive and are not much of use to glass bangle industry to improve its quality or production. For e.g. their own pot costs Rs. 700 while that of the CDGI is of Rs. 10,000. Though the CDGI is willing to give 10 pots of Rs. 1000 each on trial basis, so far nothing has been executed. According to the factory owners this is so because the 10 pots will be distributed on a lottery basis among the members, and the membership fees is Rs. 1000. The factory owners expressed the need for demonstration of the new technological equipments before they could accept them.

Suggestions by the Bangle Factory Owners

- the cost of new technological equipments should be much lower.
- consultation with industrialists/factory owners about the kind, type, schedule of seminars, workshops etc.
- there should be a representation of glass bangle factory associations in the Governing Body and Executive Council of the GDGI.
- the cost of Laboratory testing should be low.
- monthly meeting of the members and non-members for suggestions on the performance of CDGI should be organized.
- development and installation of new machines like the rotating machine that will not only enhance the productive capacity but will also reduce the cost.
- CDGI must develop new technological machines for various work done by women in the process of bangle making.
- there should be a provision of gas as a fuel instead of presently used coal and kerosene oil to set up automatic plant that would help to: (a) increase production, (b) control pollution, (c) check size and weight, (d) reduce the number of labourers.
Non-Governmental Organizations Functioning in Firozabad

There are a few NGOs working in Firozabad like

(i) Vikas Karya Samiti
(ii) Akhil Bhartiya Bal Kalyan Parishad
(iii) Shanti Madhav Memorial Trust
(iv) Brij Raj Singh Siksha Samiti
(v) SOHAM
(vi) Sarvodaya
(vii) Navjagriti Samiti - Vasak Gaon
(viii) Minority Glass Development Society

Of these, one organization, Brij Raj Singh Siksha Samiti is running a school in Mathura Nagar, which is doing quite well.

Akhil Bhartiya Bal Kalyan Parishad (AICCW), is running 5 schools for child labourers. They provide lunch and a monthly stipend of Rs. 100 /child. Each school comprises of 100 children. Of the total 500 children, there are 120 girls. One school at Chandwar Gate is exclusively for girls. Apart from imparting formal education they also give vocational training like candle making, small cane products, decoration pieces etc. Though these schools are doing well, they face acute monetary problem due to irregularity of funds. Not only the children and their parents suffer from this but even the staff members are often in an embarrased position who face similar problem themselves. These schools do not ensure the opportunities for earning a livelihood when children leave school after the age of 14 years. 5 more schools are proposed in areas in which child labour is in large number. Besides opening these schools, it is essential that these schools run effectively with adequate and regular availability of funds and facilities and help children in providing suitable jobs.
The two organizations working particularly for women are the Minority Glass Development Society (MGDS) and Vikas Karya Samiti. At the moment MGDS is running two training programmes: (a) Short-hand and Typing, (b) Toy Making. There are 30 women in each programme all of them being Muslims. The coverage and outreach of MGDS is much more than that of CDGI as they are able to give training to women from their own community within the house. The training given is free of cost with flexible timings and there is no necessary qualification. The necessary equipments and other raw materials needed for the training is provided by the Society.

The Vikas Karya Samiti is giving training to women in tailoring work. The training is for 6 months and course fee is Rs. 50 per month. The training time is two hours a day. At present two groups of 10 women each are undergoing training. The Samiti provides raw material for the product and the finished product is sold in the market with the profit margin of Rs. 1.50 per piece. They generally make blouses, petticoats, frocks and Jute dolls.
CHAPTER IV
NEEDS ASSESSMENT STUDY

On the basis of the present study, the following needs of women have been identified:

First, provision for basic amenities of food, clothing and shelter.

The women working in the factories and go-downs who are migrant labourers and stay in rented house, do not have access to facilities like ration cards, credit or loan schemes for housing or even two sets of clothes.

Second, regular and permanent source of income and the related facilities.

There is a great need for women to get a permanent job because they are not paid for sundays and other holidays. Apart from this nearly 50% of the factories remain close at a time and many of these women get work for only 6-8 months a year. Similar kind of job insecurity prevails in the household sector. As they are daily wage labourers they do not get facilities like Provident Fund, Gratuity, Bonus, Maternity benefits, Medical assistance and loan facility.

Third, basic facilities at the workplace.

Women work in extreme climate of heat and cold. There should be some provisions for better and comfortable place for work, drinking and toilet facilities and rest period in between.

Fourth, free Adult Education before or after working hours and an Education Centre.

Women expressed their desire for some education so that they are not exploited by people like contractors or money-lenders. But they are willing to take this not during their working hours.

The literacy rate of women is very low and drop out rate of girls very high. A large number of girls are willing to receive formal education and therefore there is a need for an Education Centre to give them educational guidance and/or tuition free of cost to prepare them for Board Examination (school leaving, primary, secondary levels etc.)

Fifth, schools with free education for children with some monthly stipend and one meal a day. Schools like those run by ICCW could be started in areas like Ramgarh and Hajipur where the children of working women could study and receive some vocational training.
Most of these children run barefoot on broken glasses. They also help their mothers in bhagar work and earn about Rs. 5/day.

Sixth, training programme related to glass products with stipend facility for women to upgrade their skill to enable them to earn a better living. Almost all the women interviewed have not heard about CDGI and its training programme. However, a large number of them are willing to learn if it will help them in increasing their income. But this, they can neither do free of cost or without any stipend. In the work like gold polishing most of the workers are girl children or very young girls earning good money, but they too expressed their willingness to learn some other technical work which will give them time to rest and pursue their other interests. Most of these girls leave their studies after class II because of the family pressure. The parents feel that since they earn enough and education does not guarantee employment, there is no need for them to study.

Seventh, old widow workers of 55 years of age and above should be provided with a monthly pension of atleast Rs. 250. Divorce without ‘Mehr’ and second or third marriage without providing any compensation to the first wife among Muslim workers is not uncommon. Most of the women who work in the factories or godowns are widows or divorcee. Among these young women are also exploited in various ways by the factory owners.

Eighth, a Medical Centre for free distribution of medicines and special care for women having gynaecological problems and facilitate provision of family planning. Twice a month a mobile van should enquire about the health problems of the people and also distribute basic medicines.

Nineth, substitution of coal and kerosene by gas is essential for the improvement of women’s condition in the glass industry.

Tenth, a Women’s Centre to generate awareness, disseminate information, share and solve their problems, provide counselling, take up cases of domestic violence and crime against women, assist in providing loans and in income generating schemes, adult education and training and helping women to organize around their specific issues.

Eleventh, the shifting of work related to bangle making done at home like Sadai work which is done in hazardous environment to a separate common centre with a gas facility and proper ventilation or exhaust fan.

Twelveth, there is a need for setting up a ‘Creche’ where the working women can put their children during their working hours.
CHAPTER V
AN ACTION PLAN FOR WOMEN IN GLASS INDUSTRY AT FIROZABAD
PROPOSED BY CENTRE FOR SOCIAL RESEARCH

The Centre for Social Research (CSR) follows a step by step approach of organizing the unorganized, conscientising the organized, empowering the conscientised and reordering the environment for change and women's empowerment. The empowerment approach seeks to pay attention to women's practical needs relating to employment, health, education, child-care and basic needs identified by women in particular socio-economic context.

Based on the findings of the study, CSR is equipped to organize women for development and change through:

(a) forming Mahila Samitis or Women's Collectives called the 'Mahila Swablamban Samitis' for gender solidarity and empowerment.

(b) organizing income generating activities for women through these collectives; and

(c) providing support services such as health care, child care, saving and credit facilities and awareness and organization building.

On the pattern of CSR's ongoing Projects in other districts of Uttar Pradesh, the Parivartan Programme will be formulated for women engaged in Glass Industry in Firozabad which will focus on:

(i) organizing women into a Parivartan Samiti - a society for change.

(ii) organizing health, education and family development programmes and camps in the area under the guidance of trained staff.

(iii) establishing links with the CDGI officials, NGO's, industrialists and the development and welfare agencies of the government at the district level.

Women's Collective known as 'Mahila Swablamban Samiti' will be set up as a registered unit in Firozabad. The women will be convinced to become a member of the Samiti by contributing a nominal membership fee; each woman member will be given an identity card that will enable her to have access to the Parivartan Programme. The members will
form the 'Core Group' to launch a development programme encompassing social, economic, health, family and environment issues. It will:

- create awareness among women about their needs and possibilities of changes in their existing methods of production of glass products and potentials for diversifying their sources of income. It would also make them aware about the effects of hazardous environment in which they work, generate awareness regarding the availability and the need to improve the existing health facilities.

- work in coordination with other local NGOs in developing the technical skills of women related to the glass products. The training programme being given by the MGDS in Toy Making, with the help of CSR can be extended to encompass the wider section of the society by establishing a 'Common Centre'. This Centre will provide information on skill development, marketing of products, and conduct seminars and workshops related to their work.

- impart education through Non-Formal Education (NFE) units and help them in acquiring basic minimum qualification necessary for training programmes of CDGI and other programmes developed by MGDS. For this NFE unit for adolescent girls and an adult education unit will be set up.

- properly groom them to undertake technological training related to glass industry for which only necessary educational qualification is not enough.

- generate other income generating programmes like making of packing cases for glass products. The opportunities and avenues for expansion of income generating schemes will be explored after the CSR’s intervention.

- organize health camps regularly for their check-ups and identification of their health needs, adoption of family planning methods and ways of keeping their homes and surroundings clean and hygienic.

- give counselling to women regarding their family problems like divorce without compensation, alcoholism and wife beating and other violence in the community, society or at the workplace.

- create awareness among men engaged in glass industry, workers, factory owners, trade union leaders and male family heads for proper implementation of the Action Plan.
The CSR will mobilize the existing development and administrative staff of the government at the local level to link up their services with the CSR programme and eventually take over and expand the services created by the CSR Parivartan Unit.

The details of CSR Programme along with duration and resource requirements as well as infrastructure for coordination between CSR and CDGI, local NGO's, government departments, factory owners and trade unions will be developed after UNIDO's approval for support of the programme has been received.
REFERENCES


Jasleen Dhamija - 'Firozabad Glass Industry - A Socio Economic Study', UNDP, New Delhi, July '93.

Kanch Vikas - CDGI Newsletter, Jan.-March '95 Vol. I (1), Firozabad.

By Laws of Minority Glass Development Society, NGO, Firozabad.


By Laws of Vikas Karya Samiti, NGO, Firozabad.
APPENDIX I

AN INTERVIEW SCHEDULE

1. Name
2. Age
3. Marital Status
4. No. of Family Members
5. Do children work?
6. What is your income (per day)?
7. To which community you belong?
8. What is your family income:
   a) Husband
   b) Wife
   c) Others
9. What is the level of literacy?
   a) Self
   b) Family members.
10. What is your status in the family?
11. Do you have right to spend your own income?
12. Is there any problem in your family/community related to:
   a) Dowry
   b) Spending Money
   c) Marriage/divorce
   d) any other

13. Do you/others in your family have any health problem?

14. If yes, did you undergo any treatment? How much money did you spend on it?

15. Do you get any monetary support from your family/community/workplace?

16. What kind of work do you?

17. How did you come into this job?

18. Did you take any training for this?

19. How much you earn in a day and at what rate?

20. How much time do you work for?

21. Is the money earn sufficient for your livelihood?

22. Are you able to save anything? How much?

23. What facilities you get at the workplace?

24. Do you get enough rest?

25. Do you get time for your household work and family members?

26. Do you think you need more time at home for these/any other activities?

27. What is your main problem?
28. What facilities would you like to have?

29. Do you think there should be improvement in your condition? If yes, then how?

30. Have you heard of CIGI and their training programmes?

31. Do you like to become a part of these training programmes? If yes, how:
   a) Free
   b) With fees
   c) With stipend

32. Do you receive any benefit from the development programmes in your area, and other basic facilities like electricity, water, ration etc.

33. Is any governmental/non-governmental organisation working in your area?

34. Are you benefited by it?

35. Are you interested to work for the improvement of your community? If yes, give your suggestions.
APPENDIX II

IDENTIFICATION OF WOMEN FOR CDGI TRAINING PROGRAMMES

As mentioned in the report (see p. 18) that a large number of women are willing to undertake training, it has been suggested that, considering the cultural and social constraints women are inducted in the process of glass making through a Common Centre (see p. 25). The Centre will help us in identifying women for training and prepare others for it. However, as per UNIDO's terms of reference (p. 4 & 5) we have identified women to work as Supervisor, Assistant Supervisor and trainees. The names and addresses are as follows:

Supervisor

1. Ms. Musarrat
   M.A. (Sociology and English)
   C/o Mr. Parsa
   208, Shishgram, Firozabad

Assistant Supervisor

1. Ms. Seema, B.A.
   C/o Mr. Zamiruddin
   Moh. Shishgram, Firozabad

2. Ms. Nazmin, M.A. (English)
   C/o Mr. Aizaz Ahmed
   Moh. Shishgram, Firozabad

Trainees

1. Anuradha Verma - 16 yrs.
   Naibasti, Jain Mandir
   High School pass.

   Inter pass. Ramgarh (Godown)
   Opp. Shama Glass Works
3. Manju - 25 yrs., illiterate
   Lala Ramchandra's House
   House No. 57
   Purosotham Nagar

4. Manju Chauhan, illiterate
   Shyam Nagar
   Gali No. 2
   House No. 89

5. Sajda - 24 yrs., illiterate
   Shenaz's House, Ramgarh

6. Sangida, (Polio in one leg), 7th class
   Hussaini Mohalla, Near Police Station