An Innovative Approach to Developing Scientific and Technical Information Services for a Rural Community in Gazipur District, Bangladesh

A UNESCO-supported pilot project

Implemented and coordinated by

Dr. A.K.M. Ahsanullah
BANSDOC, Bangladesh

Edited by

Margaret Stuart

United Nations Educational
Scientific and Cultural Organization

Principal Regional Office for Asia and the Pacific
General Information Programme and ASTINFO

Bangkok, August 1995
### Working Committee

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. A.K.M. Ahsanullah</td>
<td>Chairman, Coordinator and leader of the committee</td>
</tr>
<tr>
<td>Dr. Md. Lutfur Rahman</td>
<td>Member</td>
</tr>
<tr>
<td>Mr. Chitta Ranjan Sarker (BARD)</td>
<td>Member</td>
</tr>
<tr>
<td>Mr. Mahboob Elahi (BANSDOC)</td>
<td>Member</td>
</tr>
<tr>
<td>Mr. Md. Shafiullah (BANSDOC)</td>
<td>Member</td>
</tr>
<tr>
<td>Mr. Propullah Pal</td>
<td>Member</td>
</tr>
<tr>
<td>Mr. Madan Mahan Pal</td>
<td>Member</td>
</tr>
<tr>
<td>Miss Moli Rahman</td>
<td>Member</td>
</tr>
<tr>
<td>Miss Rokeya Ahsan</td>
<td>Member</td>
</tr>
<tr>
<td>Miss Nazmun Nahar</td>
<td>Member</td>
</tr>
<tr>
<td>Miss Farjana Islam</td>
<td>Member</td>
</tr>
<tr>
<td>Mr. Amir Hossain</td>
<td>Member</td>
</tr>
<tr>
<td>Mr. Abdul Kader, (Isre)</td>
<td>Member, Union Parisad, Development Committee</td>
</tr>
<tr>
<td>Mr. Mojiruddin, (Isre)</td>
<td>Member</td>
</tr>
<tr>
<td>Mr. Anisur Rahman, (BANSDOC)</td>
<td>Member</td>
</tr>
<tr>
<td>Mr. Basir Ahmed, (Isre)</td>
<td>Asst. Supervisor</td>
</tr>
<tr>
<td>Mr. Sapan Kumer Pal</td>
<td>Member</td>
</tr>
</tbody>
</table>
# Table of Contents

- Introduction .................................................................................................................. 1
- Objectives of the Pilot Project ......................................................................................... 1
- Project Location ............................................................................................................. 3
- Resource Centres in Gazipur ......................................................................................... 4
- Resource Centres in and around Dhaka ....................................................................... 5
- Preliminary Survey of Rural Villages and Identification of Isolated Communities ........ 5
- Potter Community .......................................................................................................... 6
- Outcome of the Preliminary Survey ............................................................................... 7
- Implementation ............................................................................................................... 8
- Work Plan ..................................................................................................................... 9
- Preliminary Results of the Survey ................................................................................. 9
- Community and Professional Status ............................................................................. 11
- Identification of Resource Centres for S&T Information Services in the Capital of Dhaka ........................................................................................................... 12
- Survey of the Resources Available in the Project Area ................................................ 13
- Working Arrangements ................................................................................................. 13
- Evaluation and Progress of the Work ........................................................................... 15
- Immediate Results ....................................................................................................... 16
- Mass Production ......................................................................................................... 17
Introduction

In general, rural communities in Bangladesh are poor and this is even more the case of isolated rural communities. There are, however, some school libraries, community clubs, research institutes, and international vocational training institutes at the district level (Gazipur) which have national status. These serve as scientific and technical (S&T) resource Centres to provide information which could improve socio-economic conditions in rural areas. Unfortunately, there is no coordination among these institutions, nor are they structured to automatically deliver services to the rural area.

The Bangladesh National Scientific and Technical Documentation Centre (BANSDOC), which is the agency implementing this project, has been able to identify problems of rural communities, especially of isolated communities, which could be alleviated by creating an information centre and training young as well as older people in the community to use it.

Potters (persons who make earthenware articles) are one group in particular who could benefit from the availability of simple S&T information services. The impact of rural-based S&T information services can be of practical use, even during the training period since community people can easily improve their incomes considerably and also their living standards, by using both.

Objectives of the Pilot Project

The present pilot project is thus concerned with establishing linkages both inside and outside communities, and with using existing resource centres such as public libraries, research institutes, vocational training centres, polytechnic institutes, and university library information and documentation centres, to support the rural community S&T information service so that it becomes a dynamic resource for fulfilling the
An innovative approach to developing scientific and technical information services - 
the case of Gazipur District, Bangladesh

development needs of the community. At the same time, a direct linkage between the rural community, S&T personnel and information and documentation centres has to be established for the exchange of information at village, district and national levels. This will give a direct boost to the working community and offer an opportunity for improving the socio-economic status of rural and more particularly isolated communities.

The project also has a broader objective to provide a rural community information service which can meet the greater needs of isolated communities by providing information through community centres, youth clubs, social clubs and centres and supplying basic books to school libraries, clubs, etc.

It should provide children's readers and other information booklets and materials, in addition to school textbooks, which can enhance the educational standards of children.

Under the project, it is aimed to determine the viability of establishing a centre in every village or group of villages where community members can be trained by resource persons to improve their professional skills and where they can also have opportunities to exchange knowledge among themselves. Such a centre could also serve as a place where information needs can be met for the benefit of the community as a whole through:

- responding to inquiries on how to improve the quality of products
- organizing discussions on various aspects of modern design, the manufacture of new items, and on improving markets by developing products for export, etc.
- organizing forums on specific problems and prospects for new markets
organizing film shows to educate villagers about similar activities at national and international levels

- organizing exhibitions of products produced in the village, as well as from other places (including foreign countries) so villagers can compare and improve the quality of their work and their profits

- providing frequent demonstrations of new equipment to encourage the production of new designs and items.

- establishing a centre where library materials and other information services can be consulted with a view to improving proficiency in utilizing materials (N.B. BANSDOC has been able to establish such a centre at Isre village in Gazipur district of Bangladesh, which also serves as a training centre.)

In addition, the centre can be used

- as a place where teachers, information officials and community workers can meet to exchange experience and ideas about promoting community awareness

- for creating awareness about the importance and value of reading and education and promote reading habits among children, out-of-school youth and adults. Stimulating reading habits is necessary for neo-literate.

**Project Location**

The district of Gazipur in Dhaka division was selected as the site for the implementation of the project on a pilot scale. The project area covers three villages: Isre, Dhippur and Mudhipara, which are situated in the north of Dhaka district, some 50 kilometers from the capital city of Dhaka. Gazipur has a population of nearly 1,500,000 of whom 88 per cent live in rural villages. Most inhabitants earn their livelihood from farming but a number of cottage industries have developed; these include pottery, cloth weaving, doll industry and
manufacture of small household and agricultural equipment. There are various types of showrooms displaying artisan products and the products of farming, horticulture, fishing, handicrafts, etc.

Resource Centres in Gazipur

According to official information, Gazipur has the following important resource centres:

- Bangladesh Agricultural Research Institute (BARI). It has large research laboratories and library, and a large pool of trained and skilled manpower
- Bangladesh Rice Research Institute (BRRI) with large laboratories, library and trained manpower
- Institute of Post-Graduate Studies in Agriculture (IPSA) with a library and agricultural training facility
- Bangladesh Open University (newly opened)
- Bangladesh National University (newly opened)
- International Centre for Technical and Vocational Training and Research (ICTVTR) with a good laboratory and reading centre.

According to official statistics, Gazipur has nearly:

- 585 primary schools
- 155 secondary schools
- 20 colleges (intermediate and degree colleges)
- 15 small reading centres
- 18 youth clubs with small reading rooms
- 150 junior madrashas

The project area itself has the following:
An innovative approach to developing scientific and technical information services -
the case of Gazipur District, Bangladesh

- 2 primary schools
- 1 secondary school
- 2 youth clubs with small reading rooms

Resource Centres in and around Dhaka

In addition, in and around Dhaka, there are the following resource centres:

- Bangladesh Council of Scientific and Industrial Research (BCSIR), which has a number of institutes and laboratories.
- Bangladesh Atomic Energy Commission (BAEC), which has a number of research centres and laboratories.
- Bangladesh National Scientific and Technical Documentation Centre (BANSDOC)
- Public Library
- National Library
- University of Dhaka, which has a number of laboratories and libraries
- Bangladesh Agricultural Research Council (BARC), which has a number of research centres and libraries
- SAARC Agricultural Information Centre (SAIC)
- Bangladesh Ceramic and Polytechnic Institutes
- A number of other resource centres

Preliminary Survey of Rural Villages and Identification of Isolated Communities

Regular work on the project was actually started in July 1992 with the establishment of a working committee to guide and support the project. A preliminary survey was undertaken in different rural villages in a
number of districts of Bangladesh where isolated community people like fishermen, potters, makers of thatti (hand-made cloth), makers of Kamar (small household and agricultural equipment), doll-makers, goldsmiths, miscellaneous craftsmen, hairdressers, washermen, agriculturists and a number of other communities. Although most of these communities deserve special care, attention and help, it was felt that the potter community is among the most isolated and neglected in modern society. Nobody remembers them or considers their problems, or their means of livelihood. This community, like that of the fishermen, is slowly dying out due to their low professional efficiency and frustration over their socio-economic status.

Potter Community

This isolated but sizable community lives in groups in a number of districts like Gazipur, Khulna, Barisal, Noakhali, Feni, Comilla, Chittagong, Rangamati, and in many other districts in the five divisions of the country. These groups could become very successful in terms of income contribution to the socio-economic development of the country provided they can improve their skills and means of livelihood, by applying modern but simple methods and technologies to improve the quality of earthenware products, increase production capacity and to develop new products by using indigenous raw materials and appropriate technology.

The working committee visited different communities in remote areas of several districts to gain first-hand information about the condition of these communities with respect to:

- Professional work
- Financial conditions
- Means of livelihood
- Problems and difficulties
- Level of education
- S&T information needs to improve professional skills, etc.
Although it was difficult to develop a complete picture of these isolated communities in such a short time (60 days), those conducting the survey did learn about the socio-economic conditions prevailing in most of the communities. It seems that these communities cannot effectively compete in the world of modern technology, art and quality products. Villagers have good ideas and aspirations, but lack advice about improving the quality of their products. They also need good marketing facilities, both at home and abroad.

Outcome of the Preliminary Survey

To help the target group survive with professional dignity, their means of livelihood must be improved. One way of achieving this could be through S&T information exchange with the help of 'Rural Community Information Services', the initial task being:

- To make a broad-based survey of the isolated communities fighting to survive and to protect their professional dignity.
- The survey could be directed towards the collection of such information as:

i. the number of isolated communities engaged in different occupations along with the number of individuals living in the community
ii. the problems and difficulties they face in their work
iii. ways to increase their production capacity and improve the quality of their products
iv. ways to improve their means of livelihood and social security.
Implementation

Considering the conditions in these communities and the limited financial resources available, it was suggested that the pilot project on 'Innovative Rural Community Information Services' be concerned with the problems of the isolated potter community in the villages of Isre, Mudhipara and Dhippur, situated in the Gazipur district of Dhaka Division, as well as with a number of similar groups living in other districts. This suggestion was accepted by UNESCO/PGI, Bangkok, Thailand for implementation. The agreed work programme was as follows:

- To survey and identify the information needs of the pre-selected rural communities in Gazipur district (Isre, Mudipara and Dhippur).
- To survey the resources available in selected school libraries, reading centres e.g. collections, staff and equipment, as well as to identify community leaders willing to participate to ensure continuity and wide use of the service.
- To survey and identify the information and other resource facilities in the capital or other urban areas which could be linked with the school libraries/community information services in the villages and the mechanism for linking or interconnecting them.
- To negotiate working arrangements for access to the required expertise and resources, including training for staff of the school and community library/information services.
- To run the service for an experimental period and provide progress reports at the sixth and eighth months.
- To evaluate the effectiveness of the service citing measurable changes in the community as a result of the service.
- To provide a training facility to create skilled manpower.
Work Plan

The work plan comprises:

Survey and Identification of Information Needs

Because of financial limitations and time constraints, the initial survey took place in four communities -- potters (makers of earthenware articles), fishermen, thatti makers (makers of hand-made cloth), Kamar makers (makers of small household and agricultural implements), and dollmakers. This work was confined to the villages of Isre, Dhippur, Mudhipara, and adjacent areas such as Kashempur, to ensure continuity and satisfaction of the interested people. The survey was directed primarily at collecting the following information:

- Statistics on the community
- Family status
- Professional status
- Information needed to improve occupational skills as well as living standards
- Possible outcomes of the project upon completion

Information Collection Methods

Questionnaires were supplied to the people in the communities in order to collect the desired information and to determine their information needs. Four investigators, two from village communities and two from outside, were engaged and completed their work during the period of August-September 1992.

Preliminary Results of the Survey

The isolated communities living in the three villages were found to be:

- potters (earthenware makers),
- fishermen,
An innovative approach to developing scientific and technical information services - the case of Gazipur District, Bangladesh

- doll makers,
- iron smiths (Kamar),
- handloom cloth manufacturers.

The name of the isolated community considered for investigation: Potters (earthenware makers)

The number of family and family members, village wise and community wise are as follows:

<table>
<thead>
<tr>
<th>SL No.</th>
<th>Name of Village</th>
<th>Name of isolated community</th>
<th>Number of families</th>
<th>No. of family members including children</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Isre</td>
<td></td>
<td>a. Potter</td>
<td>61</td>
<td>534</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Fisherman</td>
<td>23</td>
<td>174</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Dollmaker</td>
<td>10</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. Kamar</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>96</td>
<td>795</td>
</tr>
<tr>
<td>2. Dhippur</td>
<td></td>
<td>a. Potter</td>
<td>29</td>
<td>250</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Fisherman</td>
<td>30</td>
<td>289</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Dollmaker</td>
<td>11</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. Kamar</td>
<td>5</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>75</td>
<td>643</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Fisherman</td>
<td>50</td>
<td>417</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Dollmaker</td>
<td>5</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. Kamar</td>
<td>4</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>94</td>
<td>773</td>
</tr>
<tr>
<td>4. Kashempur</td>
<td></td>
<td>a. Potter</td>
<td>59</td>
<td>507</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Fisherman</td>
<td>42</td>
<td>369</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. Dollmaker</td>
<td>4</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. Kamar</td>
<td>6</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>111</td>
<td>964</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Grand Total</td>
<td>376</td>
<td>3,175</td>
</tr>
</tbody>
</table>
Community and Professional Status

As a first step towards implementation of the pilot project, 'Development of Rural Community S&T Information Services', the potter community was studied. This community is more concentrated in the village of Isre than it is in the other two villages (Dhippur and Mudhipara). In this community, people have very small holdings and no land for cultivation. They are mainly dependent on the sale of earthenware articles for their livelihood. These articles are limited to a few types which can be easily made by hand. They are cheap articles and naturally the proceeds from sales are very poor and insufficient for maintaining the potter's family, which consists on average of eight to ten members. As a result, potters have to look for other jobs to augment their incomes. A few families have some agricultural land and get some assistance from seasonal cultivation. On the whole, however, this community is economically very poor.

With the provision of a group training facility, proper guidance and training, semi-mechanical hand operated machines, and assistance in marketing their products, both at home and abroad, the potters could improve their prospects of earning a living. This would also raise their standard of living. Many families also need credit to finance their pottery work.

There are 125 potters, 115 fishermen, 26 dollmakers, and 11 kamar (ironsmith) families living in the three villages (the project area). Another 59 potter, 42 fisher, four dollmaker and six kamar families are living in the adjacent Kashempur village. All together, there are about 376 families of these communities in the four villages, and these total 3,144 members. The number of members per family is usually about eight. The total number of potter families is about 184, and the total number of family members is 1,556.
The survey to identify the isolated communities living in the villages of Isre, Mudhipara, Dhippur and the adjacent village of Kashpur Gazipur district is complete.

Due to financial limitations and time constraints, the final survey work was confined to the following four communities:

(i) Pottery makers (makers of earthenware articles),
(ii) Fishermen (living in a village),
(iii) Thatti makers (hand-made cloth manufacturers),
(iv) Kamar (makers of small household and agricultural equipment), and dollmakers.

The survey concentrated primarily on the following aspects:

- Socio-economic status of the families and of the communities
- Occupational status, which includes the present mode of producing earthenware articles, marketing prospects, overall income and the living standards of the community. Statistics from other communities were also collected in a similar manner.
- Information needs of the people in the target community with respect to improving their occupational skills, increasing the quality and quantity of their production, and improving national and international markets for their products.

**Identification of Resource Centres for S & T Information Services in the Capital of Dhaka**

S & T information resource facilities in the capital city of Dhaka.

The survey was conducted with all possible care and identified a number of institutions such as:
(i) the Institute of Fuel Research and Development (IFRD) and the Ceramic Research Division of the Bangladesh Council of Scientific and Industrial Research (BCSIR),

(ii) the Bangladesh Polytechnic Institute,

(iii) the Bangladesh Ceramic Institute,

(iv) BANSDOC,

(v) Universities,

(vi) the Bangladesh Agriculture Documentation Centre, the Bangladesh Central Libraries and a number of other documentation and information centres.

These are also included in the list of resource centres listed in the introduction.

**Survey of the Resources Available in the Project Area**

A survey of available resources in schools, clubs and reading centres was conducted to determine who in the community could ensure continuity and wide use of the S&T information services. Some interested people were found available to take up the work and continue it in the future. But available resources in schools, clubs and reading centres are very poor and many are not of any use. If the work is to be continued, we shall have to contribute significantly to the different centres in the project areas, especially in the centre used as a training centre. These are also listed as resource centres in the introduction.

**Working Arrangements**

Temporary working arrangements for the required expertise have been made with the Institute of Fuel Research and Development of BCSIR and the Bangladesh Ceramic Institute, Dhaka.
Training of community people is arranged by experts from outside and a brief account of the training programme, as well as its outcome, is described below. A description of the short programme for training staff of libraries and community information services is given later.

**Creation of Awareness and Skilled Manpower with a Training Facility**

As an immediate step towards implementation of the pilot project, and on the basis of a survey conducted by the working group, the following points were taken into consideration:

- Creation of awareness about the prospect for manufacturing earthenware articles for the national and international market in order to improve the living standards of the community people. This is generated by making contact with individual family members, by meetings, through discussion with young educated people, through advice from the trainer, etc.

**Creation of a Centre for Production**

- Creating manpower by making available an appropriate training programme with respect to the design and fabrication of various types of marketable earthenware articles. Hand-operated potter's wheels are being supplied for this purpose. To carry out the training programme, a centre of excellence is being created.

- A group of twelve persons have been selected for this purpose. One instructor (chief trainer), an assistant instructor and a maintenance official have been engaged for the training course. This group is subdivided into two groups (6 persons in each group), working in two separate morning and evening shifts. The training programme for creating skilled manpower has been evaluated and found satisfactory (18 weeks of training, ending 15 January, 1993). The results are as follows:
* six trainees are now able to make different designs and independently make 10 different items.

* four trainees are able to make at least six items such as flower pots, ash trays, etc.

* the other two trainees could not attend regularly for six weeks. Later, they worked continually and are now able to make at least four items each. Over all, about 85 per cent of the trainees are doing well and show great interest.

**Evaluation and Progress of the Work**

**Outcome of the Training Programme**

It is not possible to train more than 12 persons with only one machine, one instructor and one helper (sub-instructor). Considering the financial limitations, it may not be possible to undertake more than this. But great enthusiasm has been created among the community people who want to learn and acquaint themselves with modern methods and technology. A number of requests have been received from community people to undertake another training programme of 24 weeks. Unfortunately, this is not possible within the limits of present budget. However, two more technologies in this project area will be transferred. These technologies are:

- the technology for making special chollas (cooking stoves) developed by BCSIR (Bangladesh Council of Scientific and Industrial Research). These chollas reduce the cost for wood fuel by about 60 percent.

- remodelling furnaces for firing earthenware articles with the help of a BCSIR expert. This will drastically reduce the cost of firing.
The present training programme will cover at least 12 families. It is hoped that they will be able to gradually train the rest of the families in the area.

**Immediate Results**

One member from each of 12 families was trained over 18 weeks to design and fabricate the following articles:

1. Eastern flower top  - 2 types
2. English flower top  - 3 types
3. Raying flower top  - 2 types
4. Mini flower top   - 3 types
5. Tea cup           - 2 types
6. Coffee set       - 2 types
7. Large size flower vase  - 3 types
8. Bottle type flower vase  - 3 types
9. Common flower vase  - 1 type
10. Mini Bank        - 3 types
11. Pen holder       - 2 types
12. Ash tray (Diva)  - 3 types
13. Container(Baiam) - 2 types
14. Pitcher (Kalshi) - 2 types
15. Raj flower vase  - 2 types

Trainees will also be trained to make coloured articles with different designs in order to attract more customers and make easy sales. This training will enable them to undertake more creative jobs, increase their income and train members from other families.
• Results of the evaluation show that even hand-operated machines are 200 percent more efficient both in terms of quantity and in terms of quality of production. But due to socio-economic problems, it is difficult for trainees to procure even hand-operated machines.

• In the commercial market, machine-made articles are more profitable than hand-made articles because of their fine finishing. For example, if the price of a hand-made article is five taka, the same machine-made article is selling for 15 to 20 taka.

• The article with good and attractive designs and colour is still more profitable.

Mass Production:

Evaluation of the Practical Work Undertaken in Groups

In order to determine the real impact of such an innovative project, 12 trainees were divided into two groups with six in each group. They were supplied with raw materials, machines and permitted to use the centre (as the centre of production) to manufacture pottery products. They worked during the months of February and March, 1993. They were asked to make those items which they learned how to make during the training period. They were asked to put these articles into an exhibition (Baisaki Mela) which was held in the Bengali month of Baisaki.

Both the groups made 2,000 pieces over eight weeks by working five days a week and four hours a day. The articles were fired in the normal manner and made ready for sale.

Five hundred of the selected pieces were designed colourfully to make them more attractive.

The cost of manufacturing and firing was about Tk. 2.00 per piece. Sale prices averaged about Tk. 10.00 per piece.
The sale proceeds of coloured and designed articles averaged about Tk. 30.00 per piece.

In this period, each worker was expected to earn Tk. 15.00 per hour and Tk. 60.00 per day. By working at least eight hours a day, a worker can easily earn Tk. 120.00 per day, which is a good income. They can easily increase this amount with more experience and group work.

This evaluation of the progress of group work shows the expected efficiency of professional workers who have been provided with skill training. It shows the expected impact of implementing the project, 'Innovative Approach in the development of Rural Community S&T Information Services' in different parts of the country.

Achievements

Limited implementation of the innovative approach in a rural isolated community created awareness about the prospects for improving professional skills both in the minds of the target group, and in the minds of others in the community. People now realize that if they work hard using good skills and modern ideas, they can easily increase their livelihood and live with dignity and honour.

Community people came to recognize the importance of S&T information services. They can now access the Resource Centres at least in the district level. They now know where to go for consultation, expertise and advice. They fully understand that S&T information services are valuable at every stage of the manufacturing industry.
Community people are becoming conscious of the fact that information staff can give enormous assistance to them in solving some of their specific problems of improving their products, by creating training facilities in the area and by giving training to young and interested people in the area. They now understand that information is actually a 'resource and raw material' for the production of quality products.

Community people in the project area now realize that information people can play a vital role in identifying and bringing to users previously unrecognized expertise from different agencies operating at the community level in an uncoordinated way. This maximizes available resources and brings them to the community level when the need exists.

One of the most successful aspects of the project's implementation has been the creation of a centre of production in the project area where members of the community -- teachers, club members, etc. can meet, discuss their problems, exchange experiences and acquire knowledge to improve occupational skills as well as the quality of daily life (education, health, family planning, culture, etc.)

Another important aspect of the project's implementation is that the community people who participated in the training programmes and the observers (older people) are now showing great initiative and are coming up with ideas for follow-up activities to continue improving the quality of their professional skills.

**Problems and Limitations**

Problems are enormous for the target group. They are generally very poor. They are always facing difficulties acquiring raw materials for production purposes because they lack financing. They do not earn much money from their sales. Middlemen always cause trouble for them and take maximum profits from their sales. Their real income is very meager.
They have problems improving the quality of products to increase sales. For this they need financial help from the bank. For this, Government help is necessary.

Resource materials, like information and experts, are not easily available to the target group. For this, some other financial source is necessary. In addition, the required experts/specialists are not available when needed. In order to solve this problem, a simple directory of experts should be prepared using a rigorous survey and evaluation, and supplied to the target group.

In order to increase the reading habits of the younger generation and club members, simple books on science and technological innovation should be supplied in order to foster enthusiasm and reading habits among the people served.

School and club libraries are very poor in the target area. These should be further enriched for overall community development.

The target group have a great deal of difficulty marketing their products. Marketing facilities at the local level and for foreign markets must be created with the help of the Government and commercial agencies.

A humble step towards this has been taken by the working committee which is described separately.

Among the many problems and difficulties identified during progress of the project, the problems mentioned above were the most pressing.

Creation of a Marketing Facility

One of the basic problems an isolated community such as the potters face is the lack of opportunities for marketing their products. At present they are not able to sell their products easily in the free market. They are
supposed to sell through middlemen, but these middlemen are usually interested only in their own profits. The middlemen care little about the welfare of the manufacturers of the products.

In order to create a marketing facility at home and abroad, the products made by the trainees and by the working groups mentioned earlier, are supposed to be exhibited in April-May, 1993 in Dhaka. Necessary arrangements have already been made in this connection. The articles to be exhibited are nicely decorated, fabricated and colourfully designed to give them a modern appearance and to attract customers at the national and international level.

From an analysis of market trends, the market for products in local and international markets should become clear. The nature and type of people interested in products will also be identified. Another beneficial aspect of placing the products in an exhibition with those of educated people, will be the identification of popular fabrication, colour, design and types of the products for local markets as well as foreign markets. It will be a great advantage for the community to produce the right type of articles for sale. Thus, they can enhance their sales and means of livelihood.

Another valuable aspect of the exhibition is that exporters will be able to see for themselves the prospects for this industrial product. Several exporters may become interested in specific items for export. This will give a further boost to increasing the quality of the products manufactured.

With the efforts of the information professionals, the target group as well as the Government, proper and successful marketing will not be difficult. There is a great prospect for the pottery industry both in and outside the country.
The problem of packaging for export remains. This aspect is being discussed with the packaging industry in detail. Preliminary discussions with the working group have been found encouraging. Low-cost packaging is necessary in this case.

Overall Evaluation and Conclusion

In Bangladesh, a number of isolated communities deserve assistance from information services and other necessary help. But because of limitations in respect to financial support and time constraints, only one selected pottery community has been assisted under the present pilot project.

A survey of different aspects of the targeted community was conducted from July 1992 to September 1992. The evaluation involved users, producers and resource persons. The various categories of persons interviewed were:

200 Adults
150 Pupils
60 Teachers
6 Librarians
8 Community Leaders
12 Scientists
5 Technologists
2 Education Administrators
12 Resource Persons
The findings can be summarized as follows:

- All participants, including the trainees, expressed and recorded their satisfaction with the activities undertaken as per the work plan of the project. They were able to acquire knowledge which improved their professional skills.

- The activities which were found to be of the most interest to the people in the community were:

  i. Training programmes where participating and non-participating youth were interested in organizing more training programmes to create more skilled manpower in the area.

  ii. They were interested in more information on modern designs for useful products.

  iii. They were interested in providing books and reading materials to the school and club libraries and to make each community leader the centre of information.

  iv. The participants were fully satisfied with the creation of the centre at village Isre which is a focal point between the village Mudhipara and Dhipur. They are interested in equipping the centre with more equipment so that it acts as a centre of excellence in the area. A number of requests have come personally to us from old people in the community. There is a common request that UNESCO provide more assistance in this respect.

- There is great enthusiasm among the potters and other such communities for creating opportunities for marketing to local and foreign markets through organized exhibitions at the national level. Such exhibition should also be organized for the other products produced by the communities.
One of the important findings was that although women were actively engaged in pottery work, they were embarrassed to come to the training centre and learn under a male teacher. This is due to their lack of education, superstitions, etc.

The participants were anxiously waiting to see the impact of the exhibition where their pottery articles would be exhibited on an experimental basis.

Concluding Remarks

The success of rural community information services depends to a great extent on the ability of the information personnel, and the interest of local community leaders who identify, mobilize and coordinate resources and expertise, both in the community, and from outside resource agencies at the district, divisional and national level. The breadth and depth of these activities transform the information specialist into a skilled negotiator and coordinator. This increases the prestige of information personnel in communities as well as the confidence of people in the S&T information services. This will be the real success of project implementation activities in the communities.

During the project implementation, direct and indirect links were established between different Government, semi-Government and private resource agencies and institutions, and some sort of loose networking was established. Immediate follow up action is necessary to strengthen this networking, so that a direct linkage is established at different levels starting from community to national resource centres. In this way fruits of implementing projects such as the rural community information services may gradually spread all over rural areas. In this respect, the attention of UNESCO and other such agencies is drawn for positive help.
An innovative approach to developing scientific and technical information services -
the case of Gazipur District, Bangladesh 25

Urgent necessary action is solicited to develop the training centre (already established in the implementation of the project) into a centre of excellence by providing funds and equipment. This can give a great boost in improving the quality of life and standards of living in communities, especially isolated communities. It becomes a focal point where people go for information and exchange of experiences.

Telecommunication linkages may be established with the S&T department of the national government with the help of outside agencies like UNDP, UNESCO, FAO, etc. Telecommunication linkages have direct application in the development of rural community information services. Some interesting work is already in hand and will be communicated soon.

The project's implementation clearly demonstrates to people of the area, the importance of exchanging relevant information concerning productive activities which improve the socio-economic development of the community. More extensive work may be undertaken to utilize the ideas of young people in this field, which may help reduce unemployment.

At the community level, one measure of success in implementing this pilot project has been the formation of production oriented working groups among the trainees who see the direct and practical impact of the project. The impact of such a step is expected to be very positive. This has been made possible by the UNESCO-promoted concept of innovative community information services. We should work for the production by the masses.

In conclusion, one must say, information is real power which gives strength to people of all levels to visualize and take control of their lives, and help to motivate them to achieve their hopes and aspirations. All participants and members of all communities were unanimous in requesting that such a programme be continued to stimulate awareness, improve skills and develop a marketing capability.
Annex 1. Map of Bangladesh showing location of project area.
Views Expressed by the Visitors

Fine arts have two media. One is Charukala and the other Carukala. One of the various wings of carukala is pottery making which is going to be lost in the course of time. Only the (Community) Pals among the Hindus are engaged in this occupation. Other people are not involved in this trade. Ignorance, illiteracy, superstition, etc. are the main causes of this.

One of the renowned scientists of our country has taken up the great work of redeveloping and revitalizing the nearly lost cottage industry of pottery. We went to visit the project area a few days ago in the district of Gazipur. There in Gazipur, in a village named Isre, he has set up a machine to improve the making of pottery. With the help of this machine, a large amount of goods can be made in a short time. A trainer was training people of different ages, and we found that most of the workers were women. But the number of female trainees is very poor. We tried to figure out the cause of this matter.

Though the place is only a few miles from the campuses of the Open University and the National University, only a primary school can be found there. So most of the women were illiterate. We felt that fear and prejudice are their constant companions. They never even think about taking training under male trainer. They understand the importance of using the machine, but are unable to undergo the training. Another related problem is that, as their financial condition is poor, they know they are unable to purchase a machine. Another problem they face is the marketing system. This antiquated system does not enhance the well-being of the common man. Mediators or middlemen deprive workers of real gain.

Considering these problems, we think that we have accomplished a great deal, but we must think about solutions to these problems and the difficulties the scientist has who came forward to help rural people. This of course is our duty as we are the future generation of our country.

First, we must cast our eyes on education. At this time it is not possible to educate all the people of the village. Rather we should try to create awareness among people, and if necessary, train them under a female
trainer. An education programme can go along with this so they will learn to calculate. In future we would think about establishing two primary schools here.

Secondly, we should inspire other communities to take up pottery. They currently consider it the job of the Hindus. We should take the steps necessary to break this false idea and inspire them to take up this occupation in the national interest in order to improve the productive skill and to make export-oriented products with modern designs. We are glad to see that this is the outlook of the scientist working here.

Thirdly, students should become accustomed to hard work and voluntarily help in such a cottage industry, instead of passing their leisure hours in idle thought. If the educated portion of our people and the artists teach painting and decorating ash trays, flower vases, etc. this attractive decoration would mean the goods could be sold to foreign markets at higher prices. Jobless people can become engaged here. So this helps in solving the great problem of unemployment.

Fourthly, we should give importance to the marketing of the goods. Good transport systems and vehicles are needed for this purpose. As the necessary vehicles are not available, potters cannot take their goods to the cities to sell.

Above all, the Government of Bangladesh should take proper steps in solving these problems and give the poor potters the loans they need and help improve the marketing system.

Showrooms and exhibitions of these goods should be arranged so that the foreign buyers will be able to see the work. This could lead the way to earning foreign exchange by exporting goods. We are satisfied to see that the project coordinator is doing his best to arrange the exhibition and opening of a showroom for displaying the products. Let us hope that he will succeed in time.
Names of Distinguished Visitors

Professor Kazi Saleh Ahmed, Vice-Chancellor
Professor Enayetur Rahman, M.Sc., Ph.D.
Professor Abdul Hye, M.Sc.
Professor Shamsul Karim, M.Sc., Ph.D.
Mr. Jainal Abedin, M.A., MBA
Mrs. Shawgat Sultana, M.Sc.
Mr. Md. Al-Mamun, M.A.
Mr. Md. Al-Masud, B.Sc. Eng'g.
Mr. Md. Al-Amin, M.Sc.
Mrs. Shamsun Nahar Saleh, M.Sc.
Miss Rumana Sultana, B.Sc. (Hons.)
Mrs. Chanda Rahman, BA
Mrs. Hasina Hossain, BA
Mrs. Luzi Yakub, BA
Mrs. Shafia Afroz, BA
Mrs. Beauty Chowdhury, B.Sc.
Miss Trina Chowdhury, B.Sc. (Hons.)
Mr. Aulad Hossain, M.A.
Mr. M. Jainal Abedin, M.A.
Mrs. Jharna Asgar, B.Sc.
Mr. Dabiruddin, M.A.
Miss Mehrunnesa, B.Sc. (Hons.)
Mr. Md. Alauddin, M.A.
Names of the Trainees

1. Mr. Dullaf Chandra Pal  
   S/O, Mr. Hari das Pal
2. Mr. Mohendra Pal  
   S/O, Late Subash Chandra Pal
3. Mr. Jaru Chandra Pal  
   S/O, Mr. Rabi Chandra Pal
4. Mr. Chandan Chandra Pal  
   S/O, Mr. Rajjan Chandra Pal
5. Mr. Hari Padha Pal  
   S/O, Mr. Nani Mohan Pal
6. Mr. Jogesh Chandra Pal  
   S/O, Late Opendra Chandra Pal
7. Mr. Bipul Chandra Pal  
   S/O, Shakar Chandra Pal
8. Mr. Ganesh Chandra Pal  
   S/O, Late Opendra Chanra Pal
9. Mr. Subash Chandra Pal  
   S/O, Mr. Nani Mohan Pal
10. Uthpal Chandra Pal  
     S/O, Mr. Nirajjan Chandra Pal
11. Mr. Biswah Nath Pal  
     S/O, Propulla Chandra Pal
12. Mr. Bimal Chandra Pal  
     S/O, Mr. Subash Chandra Pal