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Evaluation Report

SAVE THE CHILDREN

BANGLADESH

Health, Nutrition and Family
Planning Project

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GLOSSARY

BFO	Bangladesh Field Office
CBIRD	Community-Based Integrated Rural Development
CBR	Crude Birth Rate
CDR	Crude Death Rate
CMR	Child Mortality Rate
CP	Counterpart Worker
EPI	Expanded Program of Immunization
FC	Field Coordinator
GFR	General Fertility Rate
GOB	Government of Bangladesh
HNFP	Health, Nutrition, and Family Planning Activities of SCF
ICDDR,B	International Center for Diarrhoeal Disease Research, Bangladesh
IMR	Infant Mortality Rate
MA	Medical Assistants
MOH	Ministry of Health
OA	Office Assistant
PDW	Para Development Worker
PHC	Primary Health Care
PVO	Private Voluntary Organization
RNI	Rate of Natural Increase
SCF	Save the Children Federation
SDC	Social Development Coordinator
TBA	Traditional Birth Attendant
TFR	Total Fertility Rate
USAID	United States Agency for International Development
VDC	Village Development Committee
VDF	Village Development Fund

I. EXECUTIVE SUMMARY

The child survival revolution, to prevent 40,000 unnecessary deaths every day, has barely begun. Few international health programs have yet been able to document a statistically significant, cost-effective impact on saving children's lives. The few which have, have done so only in limited areas, for limited periods, or at high costs which cannot be widely replicated. Save the Children Federation's (SCF) integrated rural development program in Bangladesh is one which has begun to document what may be a lasting impact on infant and child death rates and birth rates. An evaluation of the health related components of that program, which has received a small amount of AID support, is reported here.

Against a background of major economic, social, environmental, and public health problems in Bangladesh (Section II), SCF's health, nutrition and family planning (HNFP) activities have evolved since the mid-1970s in four impact areas containing over 40,000 people (Section III). Section IV reviews HNFP results, including continuing project activities or outputs, recent inputs of manpower and money, and indicators of impact (on infant and child mortality, family planning acceptance, and birth and death rates).

Most of these first four sections are adapted from SCF's internal reports and records, and are largely factual material reported to the evaluators by SCF staff in Dhaka and in the field. Sections V and VI, on the other hand, are the opinions of the evaluators; they analyze some of the reasons why those results were achieved.

Major health findings are promising: after a decade of trial and error evolution, SCF's strategy of community based integrated rural development (known as CBIRD) seems to work. SCF is proving the theory that integrated, multisectoral strategies for improving agriculture and income generation, while providing PHC, are economical as well as effective. The assumption is that health is improved by providing not only low cost door-to-door primary health care (PHC) but also by increasing economic opportunities for women and the landless. Even adult literacy, road building, and fish ponds are seen as contributors to improving family health. Full community participation, as well as sectoral integration, is carefully organized by SCF to include women and poor families in the traditionally male-dominated elitist decision making process.

This program has been developed for many years, and is well managed by a competent and dedicated staff of Bangladeshis. Strong technical as well as financial support is provided from headquarters in Westport. Monitoring and evaluation is advanced over many similar PVO programs, functioning not only to record impact but also to inform villagers and leaders.

SCF's approach to village based PHC, thoroughly integrated into the social, institutional, and economic development of even the poorest sectors of the community, is beginning to improve child survival and health. The average infant (under one year) mortality rate (IMR), average child (under five) mortality rate (CMR), average birth rate, and average population growth rate for the four SCF impact areas are decreasing, and are lower than in

Bangladesh generally. In the first year of measurement SCF reported a significant 25% drop in average infant mortality and a 13% drop in average child mortality, even before SCF has completed the health training and support of staff in all SCF areas, and despite the lack of government immunization programs in three of the four SCF areas.

However, such a major fluctuation in the aggregate IMR in such a short time seems to result at least in part from exogenous factors which are not affected by the HNFP program. Moreover, when disaggregated these data reveal mixed results in different impact areas. Without knowing the changes in causes of infant and child death over several years - an analysis SCF has begun it is not possible to determine to what extent the SCF program was responsible for those changes. And without knowing what changes will occur in the IMR and CMR over the next few years, SCF will not want to be held responsible for them in any case.

Data collection and processing in the impact areas needs to be streamlined. An expansion of the health information system and staff is urgently needed in the Dhaka office. Such expansion will enable the health program staff to analyze and utilize the large volume of health data being collected by field staff.

Unfortunately little progress has been made toward SCF's goals of building self-managing, self-financing programs which do not depend on continued support from Dhaka or Westport. SCF is unlikely to reach its goals cited in 1982 of "self-sustaining development" for twice the current number of beneficiaries by 1987-89. Although SCF remains concerned with that goal, it has

no schedules or target dates for promoting "phase-over" to local control in any impact areas. Though SCF works to control recurrent costs so that they will eventually be recovered by the impact areas themselves, using a variety of income generation and local revenue schemes, local cost recovery has not been achieved.

In short, SCF operations in Bangladesh are carefully designed, well organized, and apparently effective in promoting the health of children and women in the context of community development. But SCF cannot consider its Bangladesh project fully successful until at least one village can manage self-sustaining PHC, and until infant and child mortality can be lowered over several years. If SCF can keep recurrent costs down and phase-over control of its long-standing projects to local leaders, it will eventually reach its goals of community self-reliance and be a model for replication in other poor rural areas.

II. BACKGROUND

A. Development in Bangladesh

In 1971, Bangladesh became independent in a bloody revolution against Pakistan, which had controlled it since 1947 after over 200 years of British domination. Many Private Voluntary Organizations (PVOs, called NGOs in Bangladesh) came to Bangladesh to help in its post-war recovery and most, like SCF, have stayed here ever since to provide both short term relief and long term development.

The obstacles to economic development in Bangladesh are enormous and many are growing; they include administrative, social, and cultural barriers, particularly the oppression of women. Yet the urgent need for improvement and for outside assistance is increasingly clear. In Bangladesh:

- the very dense population has reached 100,000,000;
- the growth rate is 3.1% a year;
- population will probably double in under 22 years, and population growth outpaces economic growth;
- per capita GNP is under \$140; more than 80% of Bangladeshis live in poverty;
- 90% of the population is rural;
- landless laborers make up over half the population, yet 85% of the population is involved in agriculture; and
- the literacy rates are low (men 37-44%, women 13-19%).

Even these averages do not indicate the poverty rampant amongst the poor and unemployed. Wealth and resources are controlled by a small elite; power is tied to land ownership and

to relationships with government officials and urban businessmen. Women suffer from all of these inequities far more than men. The government bureaucracy, including the current martial law regime, is designed more to maintain order than to provide public services, particularly in rural areas.¹

Foreign assistance, including PVOs, is playing a large role in providing what few services reach rural villages. Over 35 governments and a full complement of multilateral organizations provide assistance to Bangladesh. In addition, more than 130 PVOs have registered programs in the country. Foreign assistance finances approximately 80% of the national budget and comprises more than 60% of all new investment. The relative share of resources, as well as the sheer number of organizations, creates opportunities for creative programming but also problems of coordination.

Bangladesh is often considered by PVOs to be an ideal laboratory for testing development theories. However, the factors and conditions defining the development setting in Bangladesh make the lessons learned difficult to transfer to other settings, and conversely, make it difficult to build upon lessons learned elsewhere. The set of social, economic, political and cultural conditions found in Bangladesh is unique and will often require unique solutions.²

B. Health in Bangladesh

National statistical averages fail to describe the state of the poorer, remote Bangladeshi families, but they do indicate the low health standards prevalent in Bangladesh compared to the averages among the 41 developed and developing countries of Asia.³

Bangladeshi children under age 5, who make up 16% of the population, suffer from high rates of diarrhea and dysentery and neonatal tetanus. Over two-thirds of children under age 5 are classified as malnourished, 58% as stunted (short for age), and 8% severely malnourished. 1.3% under one year and nearly 4% age 5-14 suffer from night blindness (Vitamin A deficiency).

A wide range of factors contribute to the prevalence of preventable disease and death in Bangladesh. For instance, changing health behaviors is difficult and time consuming under such circumstances;⁴ infant diarrhea, for example, is considered normal and is seen as related to teething.

C. Save The Children Federation (SCF)

In the past ten years, the Save the Children Federation (SCF) has become one of the USA's largest and better known PVOs. With development programs in 131 impact areas in 46 countries, SCF integrates health related activities into multi-sectoral community development programs, with the result that AID Matching Grant funding in health to SCF is far larger than to the ten other health-sector PVOs which AID supports. The current (1983-86) AID Matching Grant to SCF totals \$4.5 million;⁵ over \$2 million of that had been spent by the end of 1984.⁶ In size of budget and staff as well as in the scope of its development and relief activities, SCF merits attention in all sectors. Given SCF's concern for child and maternal health and development—clearly embodied in its name — the organization deserves special attention among health planners.

SCF's goal worldwide is "self-help community development" to improve the quality of life "of children, families and communities" in developing countries. The two goals of SCF's current Matching Grant from AID are to increase SCF's "efficiency and effectiveness" and "to reach greater numbers of low income communities by carefully planning program growth and optimizing [SCF] resources in a cost effective mannner."⁷ Using the CBIRD framework, SCF's primary purpose under AID Matching Grant funding is "to provide the technical assistance and management support necessary to upgrade the capabilities of community people for self-management of economic and social development," and more specifically "to strengthen the planning and management capabilities of field office teams to plan and implement programs" in several sectors.

D. The Community-Based Integrated Rural Development Approach (CBIRD)

Since its founding in the 1930s SCF has believed in helping children by helping their families and communities. Since 1972, SCF has recognized the multisectoral nature of village level development. Health and nutrition improvements may depend on increasing the availability of certain foods and clean water, increasing incomes (particularly of women), providing family planning services, and improving infrastructure such as roads and drainage systems. Development planners continue to debate the merits of vertical vs. horizontal development programs, but for 13 years SCF has been committed to a thoroughly integrated system in which village authorities coordinate activities in all major sectors of which health is but one. The others include agriculture,

education, public works, and income generation for women, the landless, and youth.

The CBIRD approach emphasizes responsibility and coordination by village leaders. Villagers elect a Village Development Committee (VDC) in each of the SCF 131 impact areas. The CBIRD system imposes certain requirements on participating villages. For example, VDC members must represent all members of the community, including the poor, landless, and women. SCF staff members will live and work in the villages and support the VDC in coordinating SCF activities. Village level SCF sponsored staff include one male Field Coordinator (FC) and female Social Development Coordinators (SDCs). Both types of workers are paid by SCF but remain subject to certain types of control and oversight by the VDC. Normally, the one FC is the ranking SCF staff member in the village, and at least two female SDCs are under his supervision. SCF supports the salaries of the field staff and subsidizes a variety of village development projects, but VDCs are encouraged to stimulate volunteer labor and raise local funds whenever possible. SCF policy is to encourage this self-sufficiency process to the point where SCF can eventually withdraw from the village.

E. CBIRD in Bangladesh

According to SCF reports, the purpose of SCF's Matching Grant project in Bangladesh (1983) is "to improve the quality of life of children, their families and communities through community-based integrated rural development with sectoral emphasis on agriculture, income generation, education, women-in-

development, and health/nutrition/family planning (HNFP)."⁸

Thus the project is based squarely on CBIRD.

According to USAID/Dhaka, "The purpose [of the SCF program] is to develop model CBIRD projects at the thana level emphasizing self-help ... that should lead to self-sustaining development for a target population of 75,000 to 80,000 people in a five to seven year period Over the next five to seven years [SCF] will replicate the CBIRD approach in new villages Hopefully, appropriate aspects of the model will also be replicated in other parts of Bangladesh."⁹

From 1972 to 1974 Bangladesh became one of the first SCF country programs to initiate the CBIRD approach. SCF selected four impact areas (see map, Appendix 1). Despite political upheaval, severe poverty, and a conservative, stratified culture, SCF faced the challenge of introducing "a community based program in which villagers of diverse class, religion, and sex would participate together to improve their social and economic living conditions." The major components of CBIRD planned in Bangladesh were community participation (VDCs and self-help), program support and training, sectoral and vertical integration, monitoring and evaluation, and transfer of responsibility. The general goals or purposes of CBIRD in Bangladesh evolved between 1972 and 1978 from an orientation toward specific projects (i.e., housing, irrigation, community centers) toward focus on the processes of community involvement. The current goals of CBIRD in Bangladesh, which are to be continued in the next three year project (1985-1988) emphasize community participation, integration, and replication.¹⁰

The CBIRD program in Bangladesh is described in detail in Appendix 2.

Different activities under CBIRD evolved in the four impact areas during the 1970s. SCF began activities in 16 villages as follows:

Impact Area	1972	1973	1975	1976	1977	1978	Total
Ghior			1			3	4
Mirzapur			1		1	2	4
Nasirnagar		1	1	1	2		5
Rangunia	2		1				3

Relationships with villagers and VDCs, like all other components of CBIRD, developed over time. Major changes in SCF's rules for VDCs were made in 1983 and are still being refined today. Roles of CBIRD staff are also evolving, though the male FC and female SDC in each impact area still play the major role in helping villagers identify their needs and design projects to meet them.¹¹ In theory their role is to be helpful but not create dependence, encouraging villagers to make decisions and accept responsibility for failures as well as successes. Intended to function as equals with FCs, the SDCs concentrate on women's activities, health and nutrition, and family planning. They have a key role in HNFP (discussed in the following section).

Reporting to the FC and SDC are the two types of SCF workers who relate most directly to the villagers: Para Development Workers (PDWs) and Counterpart Workers (CPs). PDWs are part-time, women, "volunteers" paid \$16 per month. Usually married, they are selected from the para by SCF and the VDC because they are liked and accepted by their neighbors. It is preferred that they

read and write, though some cannot. Like the SDC, the PDWs spend as much time with women's income and savings activities as with health work; their health duties are described in the following section. CPs are equivalent to the SDC at the village level. Multipurpose, married women workers, they are paid more than PDWs (\$18-20 per month), but have quite similar roles. They support the SDC's activities and assist PDWs with their activities, particularly in keeping and interpreting health records under the supervision of Dr. Afzal and other SCF staff.

III. THE HEALTH, NUTRITION, AND FAMILY PLANNING PROGRAM (HNFP)

A. Development of HNFP

1. Single Purpose Workers

Initially three elements characterize the SCF approach to HNFP activities in Bangladesh:

- specific project implementation instead of overall integrated program development;
- the VDC, a representative used by SCF as a structure for implementing projects, but not to build participation;
- the FC, a male, multi-sectoral worker who coordinates separate projects.

In the 1970s HNFP activities by single purpose workers were initiated in several villages in Rangunia and later in Mirzapur (see Appendix 3 for a description of HNFP activities and the years when those activities began in each area). Each of the two impact areas had three different single purpose workers in each village: a nutrition worker, a family planning worker, and a trained village doctor based at a simple curative village clinic. SCF did not at that time involve the community in much health activity.

SCF's own evaluations soon exposed the weaknesses of that approach. Although the single purpose workers still function in Rangunia, SCF found that that approach clearly lacks:

- worker collaboration;
- project integration;
- ongoing technical training and supervision;

- coordination with government services; and
- community-based preventive health education.

2. Multi-Purpose Workers

To remedy these deficiencies, SCF introduced the new integrated approach to HNFP in the Mirzapur area in 1979. Multipurpose workers there were trained in health, nutrition, and family planning. Women's program activities were added to the workers' planning responsibilities in 1981. The HNFP Project Officer, Dr. Afzal, was hired in 1978 to train staff and supervise their health-related activities, and manage the HNFP program within the CBIRD context. (Dr. Afzal's detailed description of the development of the Mirzapur experiment is Appendix 4).

Prior to 1981 the Mirzapur area had seven village health workers, but in 1981, the health program and women's program consolidated to form a new PDW in three areas. Under this new strategy, local women were hired and trained as multi-purpose outreach workers, each working with a population of roughly 1,000 (approximately 165 families). These women are recruited locally from the same para or part of the village where they will be expected to work. Their responsibilities include both the women's program (formation of groups, income-generating activities, childcare, non-formal education, kitchen gardening, etc.) and HNFP. The main concern of these workers are women and the under-five child.

B. Goals and Objectives

Few PVOs express their health goal in their name as explicitly as Save the Children. The goal normally cited by SCF for its

health activities in 12 countries is "the health and survival of children." SCF sees this goal in the context of the family: changing family behavior is seen as the key to improving child and maternal health. SCF also recognizes the importance of community behavior change. The two basic strategies cited by SCF to achieve child health are to:

- train families in behavior which will protect the life and health of their children; and
- support child protective behavior by assisting communities to organize implement, and monitor PHC.

More specifically, nine objectives, listed below, have guided HNFP planning in recent years (for the specific activities which support each objective, see Appendix 3). The objectives are to:

1. Raise awareness regarding health through health education.
2. Insure basic curative service facilities within the reach of every villager.
3. Reduce or prevent diarrheal deaths through oral rehydration and referral.
4. Insure adequate and safe water for every villager.
5. Improve the sanitation system in all the villages.
6. Create awareness on child spacing and limit family size.
7. Reduce the mortality from immunizable diseases by immunizing the target population of the community against Tetanus, Diptheria, Pertussis, Measles, Polio and T.B.
8. Improve the MCH system/services in the community.
9. Reduce/prevent malnutrition/malnourished children and save 'at risk' children.

C. Management and Staffing

1. Bangladesh Field Office (BFO)

The Bangladesh Field Office (BFO) of SCF in Dhaka manages the entire CBIRD approach, including the HNFP program, with financing, technical, and administrative support from SCF headquarters in Westport, Connecticut. "Westport" provides funding for multisectoral activities in the four impact areas where over 3000 children sponsored by SCF donors are living. The BFO organization, with its staff of about 40, is shown in the chart in Appendix 5. (Names of SCF staff in Bangladesh, most of whom met with the evaluators, are listed in Appendix 6.) About one fourth of the staff are involved directly in the sponsorship process: screening children, establishing sponsorships, facilitating and translating letters between children and sponsors, and follow-up (particularly of sponsored children with special needs). An American normally directs the BFO.¹²

The HNFP Program Officer, Dr. Afzal, is one of three Program Officers at the BFO. These three, and the Field Director and Deputy Director, make up the program team. The other two are the Women's Program Officer who trains and supervises SDCs, and the general Program Officer who trains and supervises the FC. Dr. Afzal's responsibilities include designing and managing the HNFP program, training and supervising SCF staff as appropriate in HNFP, coordinating SCF with other health programs, analysing and using health indicators, and working with the program team to ensure integration of HNFP into other sectors. Dr. Afzal is an MD specialized in MCH with experience in the PVO community and in the

Ministry of Health (MOH) prior to joining SCF in 1978. He is based at the BFO but visits one or more impact area every week for continuous in-service training, supervision and monitoring of HNFP activities. Most of his work is with Medical Assistants (MAs), SDCs, PDWs, and CPs.

2. Impact Areas

Each of the four impact areas has its own set of CBIRD activities, adapted to local needs and resources. Local staff are under the supervision and coordination of the FC and SDC, acting in concert with the area's VDCs. In the HNFP sector, the MA ranks equally with the FC and SDC and should cooperate effectively with both to ensure proper integration. The CPs and PDWs are supervised on a daily basis by the SDC, who supports them in their HNFP activities by compiling and reporting impact monitoring data including health data to the BFO. The SDC also assists PDWs and CPs with 'at risk' cases, difficult diagnoses, etc. The HNFP Program Officer is heavily involved in training and supervising PDWs and CPs, and also assists with the most difficult cases during his frequent visits.

The VDCs have an important role in HNFP management. With 15 members in each VDC (eight chosen by the sectoral committees and seven nominated by SCF), and with input from an HNFP sectoral committee in one impact area, the VDC is the focus of the community's views about HNFP needs and activities. It is involved in assessing health needs, drafting and revising HNFP program plans, providing logistic support, and developing public support for community-wide HNFP activities like volunteer construction

projects, immunization campaigns, and the annual Save the Children Day.

PDWs are very important in both women's and HNFP activities because they visit homes regularly, provide health and family planning education, distribute contraceptives, organize community health programs, and collect health data. There are 31 PDWs, one per 1,000 population. The PDWs make regular home visits, at least once a month to each household, targeting families which include: new family planning acceptors, pregnant women, malnourished children or individuals with particular health problems.

At times, however, advice will not be sufficient to solve the problem of the malnourished child, or the very poor family with inadequate health care. This is where SCF's integrated approach is most essential: the PDW is able to target a family for nutrition intervention or involvement in an income-generating project during the course of her household visits. In addition to their general responsibilities, HNFP activities of PDWs include the following:

- identifying "at-risk"* children under five; pregnant women; nursing mothers; fertile women; traditional birth attendants; (*"At-risk" means with arm circumference less than 12.5 cms or showing other signs of chronic or acute illness.)
- accompanying women to nearby centers for tubal ligation;
- administering first aid;
- medical assistance (accompanying family members to places

where curative services are available); and

- demonstrating oral rehydration.

SDCs support and back-up the PDWs with advice on difficult cases and supervise their daily activities. The MA and the HNFP Program Officer visit the SDCs regularly and review their reports. SDCs review PDW and CP reports to insure completeness and accuracy; they summarize data monthly for the BFO's records. SDCs have more HNFP experience than PDWs and CPs, and are an important link between them and the BFO. MAs provide clinical care in SCF clinics or PHC centers.¹³

D. Staff Training

Initially SCF used other organizations for training. Since the philosophy, set up, and priority of different organizations are quite different and there was not much consistency among the programs, it was difficult for the workers to adapt in a different setting. Hence SCF acquired its own training programs.

Since community level workers usually have little or no formal education and their mobility is limited, SCF had to organize training programs at the impact area and in a nonformal setting. Participatory discussions with practical demonstration and field tasks is the usual method of these training programs, and seems to work well in changing perceptions, local beliefs and practices.

All training in HNFP is designed and led by the HNFP Program Officer, Dr. Afzal, who is experienced in rural health. He travels to each impact area and conducts classes. SDCs attend these training sessions as a kind of re-cycling and orientation; many

of them had home economics or social work training which covered the same subjects. The CPs, mostly literate, and the majority of PDWs who are literate, take notes on all lectures. The trainees are aided in the classes and in review sessions by the CPs from their own neighborhoods. Details about SCF training in HNFP are in Appendix 7.

E. Supervision

Supervision is carried out by Dr. Afzal, who carries out formative supervising activities with MAs, SDCs, CPs, PDWs and others. Dr. Afzal also carries out home visits from time-to-time as an exercise in indirect supervision.

F. Monitoring

Prior to 1982, SCF had not designed an effective system to monitor either project outputs (in terms of HNFP services provided), or the impact of those outputs on infant and maternal mortality, fertility, etc. Building on initiatives taken by SCF programs in other countries, and following visits by David Pyle in 1981 and 1982, the BFO improved its system for collecting baseline data on impact area families and instituted an "impact monitoring" system. Now SCF monitors project activities (outputs), vital health events (impact), and does growth monitoring of individual children. The three types of monitoring are closely related.

The monitoring system used in each impact area (depicted in Appendix 8) is based on a data collection procedure beginning with area mapping, enrolling all families, and doing a baseline survey of a sample or all of those families (see a chart of those

preliminary steps in Appendix 9.) Because the focus of the HNFP program is on improving the health behaviors of the family, family enrollment forms can be updated annually, including the number of fertile couples in the para, family size and economic status, number of children under five, births and deaths. This family enrollment form, useful for HNFP staff in planning areawide activities, is performed initially to register families in each new impact area. It also serves as a guide to PDWs and other staff by helping them locate and recall families with special needs. Family economic status is one of the most important items identified because it determines the prices a family will pay for health services. This family form is meant to be updated at least annually, but many individual items are also updated during monthly PDW visits to every household.

At least once a month, the PDWs collect information during home visits on illnesses, malnutrition, births and deaths, pregnancies, marriages, and contraceptive use. Such information is kept in a home visit. daily diary by literate PDWs or reported by illiterate PDWs in subsequent weekly, semi-monthly, or monthly meetings. At these meetings all information reported is verified by the SDCs and entered into five registers. These are then tabulated and reported regularly to the BFO. CPs and SDCs sometimes also use mini-surveys to verify the PDW's growth records, immunization records, etc. The registers, shown in more detail in Appendix 10 include:

- birth register;
- death register;

- fertile couples and contraceptive users;
- under-five children and their nutritional status;
- "at risk" children's register and their progress.

The last two registers insure that all children under five are monitored with arm circumference at least annually for nutritional status and at least monthly if "at risk." All five forms help each SDC to estimate vital "impact monitoring" rates (infant and child mortality rates, birth rates, contraceptive acceptance rates, and rates of under-fives "at risk"). These rates are important to: a) measure project impacts; b) assist in training and supervising staff; c) focus HNFP services where they are most needed; and d) to motivate staff and beneficiaries. For example, PDWs often use these records to encourage pregnant women to get prenatal care, parents to immunize children, etc.

As immunization becomes available in the impact areas, registers of children vaccinated are also being kept by the CP and SDC. Other important information is collected monthly or annually by the CP for the entire village, including the numbers and rates of latrine and tubewell use. All data tabulated in each impact area is usually summarized annually on a poster and displayed in the VDC office in the village for public education and motivation. A monthly monitoring form for each village is completed by the CP and SDC, and copied to the HNFP Program Officer who uses it for program evaluation and planning.

SCF follows certain principles in collecting such data. First, the total target group or denominator must be identified

accurately in order to calculate vital event rates needed for monitoring program impact. Second, essential HNFP data must be recorded in the simplest way possible at the village level, particularly because of the low education levels of many SCF staff. Third, the data is always closely related to the work of the staff member collecting the data; that is, each item of information (e.g., a birth) should directly affect staff work plans (e.g., postnatal care, growth monitoring, immunization for that infant). Unfortunately, much of this new system was not in place until 1982. Before that, PDWs did not record the size of families in the impact areas or the number of live births, so there are no infant or child mortality rates available before 1982-1983.

IV. HEALTH, NUTRITION AND FAMILY PLANNING RESULTS

A. Outputs

Appendix 11 contains detailed descriptions of the eleven major program outputs or services delivered by the HNFP workers: health and nutrition, education, maternal health, growth monitoring, immunization, ORT, family planning, TBA training, water supply, latrines, and cataract extraction.

B. Inputs

1. General Expenditures

Since 1980 SCF has annually contributed over \$300,000 toward CBIRD activities in Bangladesh. About one third of the funds are provided by North Americans who sponsor over 3000 children living in the four impact areas. Additional funds have been provided by other contributions and grants including Operation Program Grants and Matching Grants from AID. During FY 1983-84, SCF/Westport spent \$477,567 on programs in Bangladesh¹⁴; actual in-country expenditures of the BFO totaled \$238,154¹⁵. For FY 1984-85, \$391,233 was budgeted for Bangladesh, including a Matching Grant of \$34,533 made by AID. Total costs of SCF activity in Bangladesh, including Westport's costs, were about \$13 per capita for the nearly 44,000 Bangladeshis who live in the four impact areas (see Appendix 14).

2. HNFP Expenditures

"Direct HNFP project expenses" in 1983-84 totalled \$17,702, about \$.40 per capita.¹⁶ Of that, \$10,597 was paid to the 65 health and health-related SCF workers for the time spent on direct HNFP activity (see Appendix 15.) Other direct expenses totalled \$7,105, including the costs of medicines, clinic equipment and

supplies, clinic maintenance, etc. None of the costs of the SCF program's overhead, general management and administration, transportation, technical or managerial assistance, support from Westport, or other inputs vital to HNFP activities are included in this figure. If SCF were to do so (assuming that 20% of overall inputs relate directly to HNFP) the total cost would be \$2.60 per capita. This is not unreasonable, given that both headquarters and local administrative staff have expended significant portions of their time on health and nutrition (not only clinical services but water projects, kitchen gardens, and the like.)

3. Personnel

The BFO in Dhaka maintains a staff of 40, usually including two full-time, long term Americans who make important, indirect contributions to HNFP activity. In addition to the HNFP Program Officer, there are 64 full or part time staff members in the four impact areas providing HNFP services.

4. Other Inputs

Many other individuals and agencies, paid and unpaid, assist SCF with important HNFP inputs, most notably the provision of vaccines by the government and vaccinators by CARE in Mirzapur. The government provides essential support to the HNFP referral system by backing up all impact areas with clinical and hospital (tertiary) services and clinical family planning services. These inputs from other agencies, like inputs from the BFO and the Westport offices, have not been included in the BFO's estimate of HNFP costs of US \$.40 per capita.

C. Impact

Since mid-1982 SCF has monitored the impact of HNFP activities by recording four annual rates:

- infant mortality rate (IMR): deaths under one year old per 1,000 live births;
- child mortality rate (CMR) deaths aged one to four per 1,000 population aged one to four;
- crude birth rate (CBR): births per 1,000 population; and
- contraceptive use rate: percentage of fertile couples (of child-bearing age) using modern contraception.

These rates are calculated annually by the BFO on the basis of data collected by PDWs during monthly home visits. A summary of data collected during the first two years, compared with national and Matlab data, is shown on page 28.

1. Infant and Child Mortality

In the first two years measured (1982-83 and 1983-84), the four SCF impact areas reported:

- a 25% drop in the average IMR, which appears to be statistically significant (see Appendix 28);
- a 13% drop in the average CMR.

These results had been reached even before SCF had completed the health training and support of village-level staff in two of the four areas (Ghior and Nasirnagar). At first glance, therefore, these figures appear to demonstrate the impact of SCF staff trained in HNFP.

Unfortunately, however, these aggregate figures are not conclusive indicators of the impact of the SCF approach. First, it is unclear why the average IMR in the SCF impact areas in

1982-83, despite a decade of CBIRD interventions, was still substantially higher than the national average.

Second, although the aggregate averages for infant and child mortality decreased favorably in the last period measured, when these figures are disaggregated (as shown on page 28) they show mixed results. For example,

- infant mortality decreased in two of the four SCF areas, but increased in the other two;

- child mortality increased in three of the four areas;

- infant and child mortality both decreased in only one area.

It is difficult to determine the reasons for these variations, or to attribute the aggregate declines in infant and child mortality to the effects of the SCF program.

One way to do so would be to look at the changes in the proportions of deaths from different causes to see whether the rate of deaths preventable by HNFP interventions did in fact decline after those interventions were introduced. Deaths from dehydration resulting from diarrhea, for example, should decrease because SCF staff are trained to promote oral rehydration therapy. SCF did tabulate deaths by cause in two of the four areas for the latest year reported (see Appendices 13 and 14 for figures from one area, Nasirnagar), but they do not appear to demonstrate program effectiveness. For example, over 40% of the deaths of children in Nasirnagar were from diarrhea in the second year even though the PDWs there had been trained in oral rehydration therapy. A second round of cause of death data and comparative rates (rather than only percentages), including both morbidity and mortality,

SCF IMPACT AREA DATA FROM 1982-83 AND 1983-84¹

IMPACT AREA	1982 POPULATION		BIRTHS		D E A T H S				% OF CONTRA-CEPTORS		MORTALITY RATES			
	Total ²	Under 5 ³			Age 0 - 1		Age 1 - 4				Age 0 - 1		Age 1 - 4	
			82-83	83-84	82-83	83-84	82-83	83-84	82-83	83-84	82-83	83-84		
RANGUNIA	9839	1545	210	254	23	12	17	19	33.3	31.7	110	47	11	12
MIRZAPUR	5240	750	150	148	12	13	3	4	39.9	43.1	80	88	4	5
GHIOR	9391	1444	258	260	29	38	13	22	34.4	38.2	112	146	9	15
NASIRNAGAR	18340	2913	507	574	112	71	67	47	10.1	13.7	221	124	23	16
SCF TOTAL: 42810		6652	1188	1209	176	134	100	92						
SCF AVERAGE:									29	32	148	111	15 ⁴	13 ⁴
NATIONAL AVERAGE:									16	?	135 ⁵	136	196	?
ICDDR,B - MATLAB (1979) ⁷											112		23	

- 1 All columns except population under 5, IMR, and CMR, are from SCF figures; the remainder are the evaluators' estimates.
- 2 Totals for 1982 were collected by SCF from its field staff. We project a 2.8% increase to 44,000 for 1983-84.
- 3 These estimates are based on the Child Mortality Rates reported by SCF. We project a 2.8% increase to 6838 for 1983-84.
- 4 The average for 1982-83 is based on actual population age 1-4 (under 5), but for 1983-84 is based on an estimated 2.8% increase in that population.
- 5 Annual number of deaths to infants under one year of age per 1,000 live births. From UN figures reported by Population Reference Bureau, Inc., Washington, D.C., 1983.
- 6 Number of deaths per year to children 1-4 years of age per 1,000 population in that age group (see Note 3). From UN figures reported by Population Reference Bureau, 1982.
- 7 Data from a comparable rural program; see D'Souza, Stan, "Mortality Case Study, Matlab, Bangladesh," Geneva, 1982.

will be needed to document whether improvements have resulted from SCF interventions.

With relatively few infant and child deaths in the SCF areas, mortality rates can be altered dramatically by events which are beyond the control of any health program. In Nasirnagar, for example, 3% of infant deaths and 6% of child deaths resulted from drowning. The evaluation team analyzed some of the environmental and programming factors which might have affected results in the different impact areas (summarized in Appendix 17), but none of them are clearcut as explanatory variables. Appendix 3, showing the years when different activities began, does seem to indicate that in some areas, notably Mirzapur, the success of SCF in increasing infant and child survival correlates with early introduction of health activities, but this is also not clearcut. While the evaluators are convinced that SCF's strategy has been effective, only data on the causes of death in all four impact areas, and sustained improvements over several years will verify the lasting impact of CBIRD on child survival.

SCF speculates that whenever infant and child mortality rates improved they most probably resulted from SCF's women's program and HNFP activities, including:

- oral rehydration teaching;
- growth monitoring (using arm circumference) with subsequent special home visits to the "at-risk" child;
- encouraging mothers to get tetanus vaccination;
- teaching about better food use and the Vitamin A containing foods in particular; and
- increasing child spacing (family planning acceptance is well above the national level).

In addition, the community based program helped families to:

- raise two crops a year instead of one (Nasirnagar, in particular, is growing two crops: wheat as well as rice, whereas they used to grow only rice);
- plant kitchen gardens and increase the use of Vitamin A rich foods; and
- increase attention to the nutritionally "at-risk" child by many mothers. (We observed instances where a whole "mother's group" would collect to help a young mother overcome the anorexia her young child presented in a post-diarrhea episode).

For this evaluation Dr. Gretchen Berggren analyzed recent changes in SCF's nutrition strategy and did a "Matched Pairs" study which showed factors distinguishing well-nourished from poorly nourished children (see Appendix 28).

2. Family Planning Acceptance

The knowledge of family planning is very high in all SCF villages, judging from the Bangladeshi evaluator's interviews with village men and women of all socio-economic strata. SCF's effort to raise the level of awareness of family planning, coupled with its community based services, has led to impressive levels of current use by eligible couples in the impact areas:

Contraceptive Prevalence Rates

<u>SCF Impact Areas (1984)</u>	<u>National (1983)*</u>
AVERAGE, ALL AREAS	AVERAGE : 16.2%
MIRZAPUR	RURAL : 12.1%
GHIOR	
RANGUNIA	
NASIRNAGAR	

*Source: National Contraceptive Prevalence Survey, 1983.

Since all the SCF impact areas are rural areas, the best comparison with the national figures would be the prevalence rate for rural areas of 12.1%. Within all SCF impact areas (except Nasirnagar where the family planning program started only about two years ago), rates of current users are at a higher level than both the aggregate national and rural rate. Appendix 18 provides more details of vital events and further highlights the steady increase in contraceptive prevalence in SCF impact areas.¹⁸

The mix of contraceptive methods varies from village to village. Generally those with a large percent of acceptors have a better balance between permanent and temporary methods. For example, in the Kulkurmai village of Rangunia (June 1984) there were a total of 143 acceptors of which 66 adopted permanent methods and 77 were on temporary methods.

3. Vital Rates

The following table clearly indicates that the family planning program and the overall CBIRD approach of SCF has had major impact on vital rates:

VITAL RATES (1983-84)

BANGLADESH	<u>CBR</u>	<u>CDR</u>	<u>RNI</u>
National Average*	49.0	18.0	3.1
SCF AVERAGE, ALL			
IMPACT AREAS	28.0	10	1.8
RANGUNIA	25.3	7.3	1.8
GHIOR	26.9	11.9	1.5
MIRZAPUR	27.5	7.4	2.0
NASIRNAGAR	30.3	11.6	1.9

* UN figures reported by Population Reference Bureau, Washington, D.C., 1983.

The CBR, annual births per 1,000 population, for all SCF impact areas is 28 and the Crude Death Rate (CDR), annual deaths

per 1,000 population, is 10, both of which are much lower than the national figures. They resulted in a considerably lower natural rate of natural increase (RNI), the birth rate minus death rate, of 1.8 vs 3.1. The SCF impact areas of Ranguinia, Ghior and Mirzapur have all shown substantially low vital rates. Even Nasirnagar, where family planning services are relatively new, is much lower than the national CBR and CDR levels.

Appendix 19 shows a comparison of SCF impact areas with recent data from other small area projects, some of which are PVOs. The table shows that the CBR for SCF impact areas as a whole is one of the lowest in the group. The CDR, though much lower than the national average, is slightly higher than three out of the four other projects compared. However, when Nasirnagar is excluded from the SCF impact areas, the CBR drops to 26.4 and CDR to 9.1 which lowers the RNI to 1.7, the lowest of the projects compared in the table.

Appendix 20 shows the age specific fertility rates in Mirzapur and compares them with the MCH-FP project of ICDDR,B in Matlab. It may be mentioned here that Matlab is also most comprehensive and scientific. The Table shows that in Matlab (1981) the General Fertility Rate (GFR) is 148 and the Total Fertility Rate (TFR), live births per thousands, is 4.81. In comparison, in the Mirzapur SCF area (1983) the GFR is 172 and TFR is 4.98. In 1984 GFR and TFR declined further in the Mirzapur area to 161 and 4.56 respectively.

It needs to be mentioned here that though the data collection system in SCF impact areas is well organized, the system is quite recent and was not originally designed for surveillance or research purposes. There are considerable variations between

project areas within Bangladesh and the uneven and inadequate data collection methods may be introducing some bias.

V. ANALYSIS OF RESULTS

A. Project Management

1. Planning and Design

SCF began testing the CBIRD approach in the difficult socio-cultural environment of Bangladesh in 1972. It has taken SCF over a decade of planning, testing, trial and error to develop the current HNFP program. That redesign process continues daily and is far from over. SCF has taken time, partly by intention and partly by necessity, to design HNFP activities which respond to locally felt needs (e.g., for PHC centers) expressed by the representative village committees SCF has developed. While slow and difficult to implement, SCF's approach to responsive, bottom-up planning - hardly a traditional way to plan village projects in fatalistic Bangladesh society - seems to be worth the extra effort.

Villagers at all economic levels appear to be involved to some extent in project planning. SCF's responsive planning has helped solve problems including difficult relationships between FCs and VDCs and between SDCs and FCs. People's involvement in planning through VDCs has increased their willingness to contribute labor (e.g., building PHC centers). Recent planning improvements have resulted from improved monitoring following visits by Pyle (1981, 1982) and the Berggrens (1984, 1985). The HNFP staff is aware that planning can be improved. However, HNFP targets and priorities are not specific enough to help the staff set measurable objectives, refine work schedules, or

measure progress, and the schedule for specific "phase-over" activities is inadequate (see below.)

2. Staffing

SCF's 40 staff members of the BFO appear for the most part competent and unusually hardworking. Overtime and weekend work seems to have become an office tradition for several key staff, and their commitment to SCF is evident. The BFO staff is moving toward localization; SCF's entire Bangladesh program had functioned relatively smoothly for over nine months without an American Director, under the control of a Bengali Acting Director. The HNFP Program Officer is an outstanding Bengali public health physician, experienced in public health planning and training in both the public and private sectors. The BFO appears to have sufficient technical assistance from Westport when required.

Village staff also appear to be competent and respected, though some appear far more experienced and mature than others. In one village, P's who had been criticized in the early 1980s as "loose women" (for working away from the home) now upset local families if their visits are not frequent enough.

In the three areas we visited, most village workers seemed adequately trained in PHC by the HNFP Program. All staff are resident in the villages where they work and are responsive to (but not paid by) the local VDC. Some have worked for SCF for some time, and staff turnover did not appear to be the problem it has been in PHC projects elsewhere. Only a few village staff

have actually been dismissed - a good record in an area marked by factionalism.

3. Linkages

SCF's ties to AID and to other non-government organizations working in (or adjacent to) SCF impact areas are good. Former PVO officers at USAID were very interested in and supportive of SCF, and visited both the BFO and some impact areas several times. (The new PVO officer has just arrived in Dhaka.) SCF works occasionally with other PVOs, cooperating particularly with CARE in two of four areas. In Rangunia, for example, sterilizations are provided by a Christian mission hospital.

SCF relations with both local and national government authorities, including the MOH, are inadequate. Although it is generally considered to be difficult for most foreign PVOs to work closely with the MOH, SCF has not made enough effort to communicate and collaborate with the GOB. Many GOB services in several sectors have strengthened SCF programs; for example, some SCF field staff have received MOH training, and all SCF staff refer patients to MOH clinics or family planning centers. The government provides SCF with contraceptives and sterilization services in all four impact areas. In the area of water supply and sanitation, SCF field staff and the HNFP Program Officer deal with UNICEF and Department of Public Health Engineering regarding the procurement and supply of tubewells and latrines. In Rangunia, SCF provides housing for a government extension worker in return for extension services. In Ghior, SCF provides medicines, which are in short supply, to the Government clinic

in Jabra village. As a result adequate health services are provided to two villages in the SCF impact area.

Nonetheless, the evaluators believe that SCF staff need to be more active in promoting close ties to the MOH in Dhaka and in impact areas. Although it can be frustrating and time-consuming, cooperation with the MOH is essential for project replicability and sustainability. SCF also needs closer collaboration with large PHC programs which are allied to the MOH such as the ICDDR,B. SCF can strengthen its own HNFP program and improve possibilities for replicability by making greater efforts to achieve stronger cooperation in such areas as immunization, PHC training, and information systems.

4. Monitoring

Thorough and frequent HNFP data collection is one of the strongest features of the SCF program, not only because it is the first step toward measuring impact but more importantly because it enables field staff and supervisors to do their job. It helps them identify and follow-up specific, nutritionally, high risk infants and women, problem paras, and areas with high infant mortality or low family planning acceptance.

Initially all families are registered by SDCs in their village baseline survey. Since 1982 all PDWs have kept records (from their daily house visits) of all births, deaths (infant, child, and over five years), family planning acceptors and malnourished children. This information is compiled into village-wide records on a monthly basis and submitted to Dhaka. Combining frequent growth monitoring of at risk children and

monthly growth monitoring (using arm circumference) of all children, this information system keeps HNFP staff at all levels aware of the problems they can solve.

Some inconsistencies in data collection and reporting were evident. These seem to result from such factors as PDW turnover, lack of training in record-keeping, and lack of more efficient materials (e.g. carbons). These all need to be addressed as the project matures.

The BFO, however, has not been able to keep fully up to date in analyzing and utilizing the extensive data received from the field. The HNFP Program Officer cannot and probably should not be tabulating this data himself; a statistician is needed, and SCF has plans to recruit one. When the impact monitoring data currently being collected can be more carefully analyzed, it can then be better utilized in planning future HNFP activities and priorities, training and supervising PDWs, allocating scarce time and resources, and so on.

One major omission in the current monitoring system is death by cause. Although this exists in the impact area notebooks, the HNFP staff in Dhaka do not document and regularly analyze factors which affect infant and child mortality. Therefore, they can only speculate about what is needed to reduce mortality (unless they go to field areas and tabulate it themselves). A brief look at changes in each area and the environmental and programming factors which might explain them is shown in Appendix 17. In the absence of more thorough explanations, several

conclusions might be drawn from the infant and child mortality data collected to date:

- the most successful area, Mirzapur, stands out for having a high ratio of workers to population, multipurpose workers, a smaller target population, the best immunization coverage, access to family planning clinics and a hospital, and major improvements in water and sanitation;
- the impact monitoring system has begun to provide useful information about infant mortality, an unusual feature for any PHC program;
- there is a very wide range of factors which affect the IMR, many of them well beyond the control of any PHC program; and
- it will take at least a few years, certainly more than one or two, to establish reliable, valid, and statistically significant data indicating the effectiveness of CBIRD in saving infants and childrens' lives.

5. Evaluation

While SCF's ongoing impact monitoring system has begun to strengthen HNFP management, SCF's periodic internal evaluations since the 1970's have also provided important feedback and guidance to BFO managers. For example, two self-evaluations were completed since 1980: an analysis of the SCF's approach to community development in Bangladesh by the SCF Asia/Pacific field staff (1981), and an "Evaluation of the USAID Operational Program Grant to SCF-Bangladesh, 1977-1982", by David Pyle (1982). Both studies illustrate how a PVO can utilize regular output and process indicators to analyze its program's strengths

and weaknesses, and to improve the program accordingly. Both studies documented some important changes and suggested others - suggestions which were effective particularly because they were self-generated, not imposed by external evaluators or donor agencies.

The 1981 self-evaluation found that prior to 1978, CBIRD had been designed primarily as an administrative structure to present plans to the villages, through the FC and the VDC, without true participation in the planning process by villagers, particularly the poor and women, who were not VDC members. When Ken Forman became Project Director in 1978, he redirected the program toward process objectives to increase the internal integration of program components, linkages with outside resources, and strengthen participation by all villagers. He also established the program's monitoring systems.

David Pyle (1981 and 1982) affirmed the need to continue building the "process" approach and recommended introduction of the specific impact monitoring system now in place. He also recommended several other improvements, and nearly all (except introduction of a "process monitoring system") have been effectively implemented (see Appendix 21.) Pyle also made a range of recommendations to SCF which related specifically to the health sector and marked a major turning point in program monitoring. Over half of Dr. Pyle's recommendations have been implemented, and progress has been made on others (see Appendix 22.) Similarly, in 1984 Drs. Gretchen and Warren Berggren visited three of the four impact areas and recommended improve-

ments. During the six months since that visit, some improvements have been made (see Appendix 23.)

B. Community Participation and Benefit Distribution

Through the CBIRD approach, SCF has been largely successful at involving the community in the various sectors of the program. The assumption of this approach is that the community, in view of the social and economic constraints of rural Bangladesh, has to be mobilized. Participation requires local "constituencies" or organizations which are lacking in rural areas. A key element of the community-based approach of SCF is therefore to organize the local public to effectively participate in the program.

1. Village Development Committee (VDC)

The vehicle chosen for mobilizing such participation is the Village Development Committee (VDC) and four subcommittees (agriculture, landless, women and youth). In Mirzapur there is also a sub-committee for PHC. In the other impact areas the HNFP functions are looked after directly by the VDCs. There is a VDC in each of the 17 SCF villages.

Early in its experience SCF found that if all VDC members are elected, then the VDC is usually dominated by the powerful families. This is primarily because of the "patron-client" relationship (between powerful land-owning families and the rest of the villagers) that still prevails in rural Bangladesh. In order to reduce domination of few families, SCF introduced an alternative practice in selecting members. Out of the 15 members of VDC, eight are selected by the subcommittees (two

from each subcommittee) the other seven are nominated by SCF field staff. Three of the 15 VDC members are women. Beside the "patron-client" relationship, SCF realized that there are two other major constraints in improving the quality and quantity of community participation: factional rivalries (between social, political, economic and religious groups), and the subordinate role of women.

In its CBIRD approach SCF consciously chose a non-confrontational path in order to work with the entire community rather than individual segments. An important SCF objective is to improve the earnings and living conditions of the poorer and neglected groups of villagers. To achieve this SCF has used four major strategies:

- measures to improve overall health and nutrition status of the villagers with emphasis on the status of the poor (public health, preventive/curative care, MCH, nutrition and family planning would be in this category);
- special projects and loan schemes for deprived groups (e.g., landless and women);
- agricultural and other economic improvements for all villagers including the better off farmers (e.g., support for irrigation, seeds, fertilizer, and pesticides);
- infrastructural improvements (e.g., roads, culverts, drains for the villages).

There was a conscious decision not to exclude the better-off or rich families from the program benefits since that would make it difficult to implement the program.

2. Socio-economic classifications

In the mid-1970s SCF Community Councils first adopted a graduated scale for medical cost recovery for clinic visits based on socio-economic status (e.g., 100% fee for the rich, 75% for the middle income, 50% for the poor and 25% for the very poor). This system was first introduced in Rangunia, followed by Mirzapur and more recently in Nasirnagar and Ghior. According to this system the village families have been classified into four categories (each family has a color-coded, health card indicating their socio-economic status category). This categorization system (though originally designed for the recovery of medical costs) is an important tool in determining local participation in processes (e.g., meetings, campaigns) and benefits (e.g., distribution of loans, fertilizer, seeds, medicines, contraceptives).

Pyle's 1982 evaluation indicated that the influence of richer families in the VDCs was considerable and that in the agricultural sector benefits were skewed towards the better off farm families. SCF is fully aware of this problem and has been constantly trying to increase the effectiveness level of the poorer sections' participation. SCF inputs in HNFP and projects for women and the landless have been largely successful in providing program benefits directly to the poor. During our field visits to impact areas we observed the difficult process of negotiations through which the SCF staff try to maintain the checks and balances for more equitable distribution of program resources. Our meetings with VDCs in Rangunia and Mirzapur (followed by discussions with the villagers

and SCF field workers) suggest that VDCs are still led by elitist leadership. Yet, through the check and balance system introduced by SCF, representation and participation of the underprivileged or deprived segments of the villages have improved considerably.

Two things seem to have helped to initiate this change: orientations of VDC leadership, and decentralization of financial and other decision making authority. Responsiveness of VDC leadership to community problems and solutions have been enhanced by continuous orientation. In regular VDC meetings the members of the subcommittees (including PHC, landless and women) voice their concerns and needs. VDCs continue to be responsible for village service projects; roads, bridges, schools, water supply and sanitation. In impact areas where there are no PHC committees, VDCs also look after curative health services, immunizations, and family planning. However, the sectoral committees have now been given more freedom with regard to loan projects, including project proposals, implementation, organization of participant groups and loan collection.

3. Participation in HNFP

In this evaluation it is important to look at the extent of local participation in HNFP activities. We found the following indicators determined program accessibility for the villagers:

a. Physical Location

One of the most important advantages that SCF created in terms of accessibility is the location of its basic unit--the PHC Center or equivalent is located within the village itself.¹⁹ These clinics provide essential curative care, particularly for

mother and children, and work as the center from which preventive measures (e.g., immunization), nutrition and family planning activities are planned and implemented. The basic unit's outreach in the field is the resident PDW. This high level of accessibility to both the clinic and field worker enhances the scope of public participation in program activities.²⁰

b. Decentralization

Through the VDCs and the subcommittees, administration, including financial concerns, is largely decentralized. Within the SCF administration itself there is a considerable degree of decentralization. The field staff (including the MA, SDC, FC and PDWs) can make their own decisions as well as plan and implement programs within the areas. The VDC office secretary (a local resident) plays a crucial role in managing decentralized functions. But increasingly these functions are being shifted to the subcommittees to encourage further decentralization.

c. Flexibility

SCF field staff are trained to be responsive to "felt needs" of their clientele. Feedback from the communities is received during regular meetings of VDCs, SCs and other frequent contacts with the villagers. In our discussions with field staff in Mirzapur and Rangunia, we found that staff do respond to local needs without initial approval of the BFO.²¹

d. Incentives

Since SCF has an integrated program, distinguishing the specific incentives to participate in the HNFP program is not easily measurable. Rather, the advantage of agricultural loans,

women's programs, and education for children is comprehensive, and not separated from HNFP measures. Thus the community can perceive a total package of benefits. This conclusion is based on our discussions with various VDC and subcommittee members.

e. Women, Landless, and Youth

SCF has channeled considerable efforts to organize special interest groups for women, the landless, and youth. The purpose is to strengthen these groups socially and economically so they can effectively use all inputs of the program including HNFP. The same strategy has been followed by Gonoshasthyo Kendro, BRAC, International Union for Child Welfare and a number of other PVOs.

4. Indicators of Participation

Three indicators show the extent of actual participation that exists in the SCF program:

a. Decisionmaking & Administration

SCF has made a special effort to involve the public and its leadership in various project decisions. This is evident when tracing the development of the HNFP program component. For example, the initial decision regarding the location of the PHC in Dherna village of Mirzapur was actually handled by the local communities themselves. SCF provides an idea but the actual proposal has to come from the villagers.

The PDWs report their health and family planning activities in the meetings of VDC and its subcommittees. On the basis of these reports and the guidance of SCF field staff, the VDCs make the program's operational decisions. The HNFP Program

Officer frequently helps the VDCs with their plans in this sector. The three VDCs that we contacted were generally aware of some of the following important issues:

- number of children "at risk" (nutritionally or because of special illness) within their areas;
- number of latrines (by types and location in the village);
- number of tubewells (by location/source of subsidy) in the village;
- number of couples eligible for family planning services; (number of acceptors and the methods used were not always known); and
- knowledge about ORT and procedure to make the saline at home.

In most VDC offices the above information is readily available and often displayed on the walls. The field staff often brief the VDCs about local problems and possible solutions. This awareness enables the VDCs and subcommittees to effectively participate in the ongoing and operational decisions of HNFP projects.²²

b. Resource Contribution

Unlike some other NGOs in Bangladesh, SCF does not pay all activity costs. Contributions are mobilized from the local public through donation of land, labor, materials and recovery of medical expenses. All VDC offices and PHC clinics are built on land donated by villagers who also contribute labor and materials for construction. Many roads and bridges are also built by volunteers. The cost of providing and maintaining irrigation is

recovered from the beneficiaries. Medical costs are recovered from the public on the basis of their ability to repay (100% from 'A' groups of richer people and 25% from 'D' groups who are very poor). Any child "at risk" is always treated free of cost. No direct contributions are made by the public for costs of immunization, ORT and family planning. However, the VDC and many members of the public often give their time and make their houses available for promotional and motivational work.

The cost of household latrines and tubewells is paid partially by the individual family (Tk. 150 for water-sealed latrines and Tk. 250 for tubewells). Some VDCs are now considering measures to raise money, labor and materials to install latrines in households that otherwise could not afford them. For instance, the VDC in Ranashal in Mirzapur last year charged irrigation pump users One Taka extra per decimal of land irrigated to raise money for community work. Such sources of small but regular contributions to support the HNFP program have not been tapped adequately.

c. Benefits

Widespread benefits of the HNFP program are evident. These include the decrease in number of children "at risk" and infant mortality, as well as the percentage increase of eligible couples who are acceptors of family planning.

C. Costs, Replicability, and Sustainability

One of AID's strategies in supporting PVO health projects is "to promote self-sustaining programs [which] will emphasize rigorous analysis of recurrent cost requirements, innovative

financing mechanisms, and creative private sector involvement. The objective is a mix of host country public and private resources.... Generally, however, personal health services will be financed by the consumer."²³ We asked whether SCF is promoting self-financing health services.

Like all PVOs, SCF has to strike a balance between providing aid, which may create dependence, and encouraging self-help to build independence. SCF must balance its immediate goal, to help needy children, with its long term goal of community self-sufficiency: "to create a viable community of people who have the capabilities to carry out their own development projects well beyond the time when Save the Children has moved on to other needy communities."²⁴ SCF is well aware that its programs, while effective among the 44,000 people living in the four impact areas, still only affect a tiny fraction of Bangladesh's 100 million people. Both AID and SCF seek to develop model programs which SCF can replicate itself or which can be replicated by the public or private sector in other areas lacking health services. Those programs replicated in new communities must be low in cost if they are eventually to be paid by the beneficiaries or communities involved. There are many ways to look at the costs of the SCF program in Bangladesh, including total SCF costs, total program costs within Bangladesh, and costs of HNFP only.²⁵

Total SCF expenditures for CBIRD of over \$13 per impact area inhabitant would at best be difficult for any organization to replicate widely in Bangladesh. SCF can cover such costs because its sponsorships, other donations and grants can be

spent on community development in a few high impact areas, but such costly programs are unlikely to be replicated in other areas or sustained by local communities (see note on sustainability by Dr. Gretchen Berggren, Appendix 30).

Omitting capital or start-up costs and any costs outside the village, the recurrent HNFP costs of paid staff, medicine, equipment, etc., within the village are estimated by SCF Dhaka to be only \$.40 per capita. However, it would be entirely inappropriate to omit such costs as "outside" training and supervision in trying to predict the actual recurrent costs of the HNFP program; HNFP costs are part of an integrated CBIRD approach and cannot be easily separated out from other integrated community development activities which cost at least four times more. Moreover, the per capita cost of \$.40 covers PHC only and not the costs of extensive clinical or hospital care, which is provided by the government, especially in Ghior and Mirzapur. It is difficult to foresee how the HNFP system can be replicated in many new communities without most costs being bourn by the beneficiaries.

SCF is discussing methods of recovering such recurrent costs locally. Currently the impact areas are said to recover between 16% and 40% of some recurrent HNFP costs, but the HNFP staff has not defined clearly which costs or payments are included in that estimate.²⁶ Major cost recovery methods being considered include:

- linking HNFP to income generation activities;
- contributions from each family; prepayments for services;

- low premium family health insurance; and
- contributions from the village development fund of the VDC.

Unlike income generation projects -- where there is a profit and immediate personal gain incentive -- it is far more difficult to raise funds from the community directly for public health projects. SCF is therefore considering linking up income generation activities within HNFP. For example, in recent years, grain storage and fish ponds have proven profitable. Income from such undertakings can be channeled to the community's HNFP program. Testing such ideas is particularly important in areas where phase-over is under consideration. To date, however, none of these potential cost-recovery methods have been analysed in any depth. There has been little discussion of them with VDCs, and there are no specific plans to test them, even on a limited scale.

D. Cost Effectiveness

Complex analysis based on many arbitrary assumptions would be required to establish the cost-effectiveness of SCF's approach in Bangladesh, and is well beyond the scope of this evaluation. The unique nature of this program precludes comparing its costs to those of other programs. Superficial observations are evident from the financial data published by SCF in Westport and Dhaka for FY 1983-84, but without more information, they may be quite misleading. Some examples include:

- over \$90 was spent by SCF on behalf of each child, assuming that there are about 6700 children under five in the SCF impact areas, and that they are the primary focus of the SCF program;

- the cost per death averted was either \$1533 or \$619, depending on the estimate of expenditures used, assuming that the decrease in infant and child deaths during the year was entirely attributable to the HNFP program, and that 13% of expenditure was spent on HNFP; both figures are in the lower range compared to similar programs in other countries which average about \$2000 per infant/child death averted.²⁷

A fuller interpretation of the data shows that:

- it is misleading to consider only one year's costs or benefits, since they should be analyzed only in relation to past and future years' figures;
- the integrated nature of SCF's CBIRD approach makes it impossible to estimate the costs of HNFP per se;
- such MOH inputs as tertiary care, vaccines, training, etc., have not been included in cost estimates;
- many factors outside the program's control affect infant and child mortality.

E. Phase-Over

In keeping with its goal of building community self-sufficiency, SCF has talked since the late 1970s about its desire to phase itself out of CBIRD activities in selected impact areas. SCF's intention is to "phase-over" by slowly withdrawing its financial, managerial, and technical support from villages which demonstrate a certain

level of self-reliance. Phase-over was to begin when a village has met most of 14 criteria (see Appendix 25.)

After a decade of SCF activities, several SCF villages appear to be close to developing such capabilities. Kulkurmai, a village in the Rangunia area, has been considered particularly ready for phase-over since 1978 when in-depth discussions began between the Rangunia FC and the VDC. In his visit to Kulkurmai in 1981, Pyle verified Kulkurmai's ability and readiness for this step, and in our visit to Kulkurmai in February 1985 we confirmed once again that the criteria for phase-over seemed to be met. In discussions with Mr. Chowdhury, Kulkurmai VDC Chairman, and VDC members we found that they are informed about SCF's general intention to phase-over. SCF has stopped selecting new children in Kulkurmai for sponsorship - the first step in phasing out SCF financial subsidies. The VDC now has a total of approximately 200,000 Taka (\$7700) in its Village Development Fund (VDF) which it uses for income generation projects. The VDC appears to be ready and willing to start phase-over, particularly if SCF would provide some additional capital to the Fund to ensure financial self-sufficiency.

However, despite the years of discussion and the potential managerial and financial capacity of Kulkurmai's VDC to plan their own development, SCF still has no concrete plans for phase-over. After much talk and little action by SCF, the VDC simply does not take the phase-over issue seriously. The absence of a definite plan for in Kulkurmai may in the long run hamper the efficiency of the SCF program. For example, there is no doctor in Kulkurmai

now and no new doctor is being appointed. The VDC has no plans for new income generation activities which could be started up with additional SCF funds. The villagers have no clear sense of their future responsibilities. It is possible that continued uncertainty may adversely affect the program in the village; similar confusion about when and where SCF's role ends and self-reliance begins may be affecting other SCF villages too. In our view the goal of community self-sufficiency is far too important to be postponed any longer.

SCF is unquestionably moving in the right direction. It is looking for new villages in which to sponsor children and encourage integrated development, and it has formed a committee of BFO staff to analyse the forces for and against phase-over. At its last meeting in June 1984, although the schedule for phase-over was not decided (and the committee has not met since), it did grapple with important issues and possible solutions (see Appendix 26.)

F. Sponsorship vs. Self-Sufficiency

Approximately one-third of the support SCF receives for its work in Bangladesh and 45 other countries comes from about 100,000 sponsors. Each contributes \$16 each month to help and correspond with a specific child. In recent years both increased concern for the Third World and SCF's prominence in the PVO community has greatly expanded SCF's public support; sponsorship has become a very effective and popular fund-raising mechanism. In the last fiscal year SCF's revenues jumped nearly 16% and may increase even more this year.²⁸ This rapid expansion presents SCF with both an opportunity and a challenge. Sharply increased funding encourages

SCF to continue supporting children in existing impact areas and to expand its programs to new areas as quickly as possible. But efficient and effective CBIRD programs cannot be developed overnight.

Indeed, through patient trial and error, it has taken SCF more than ten years to fully evolve its Bangladesh program. It has taken further time and effort to recruit, train, and retain high quality staff members and volunteers for jobs at all levels from village staff and VDC members up to the top BFO staff - including the Director. CBIRD plans, activities, management and reporting systems have been established with sensitivity to environmental variations between village and impact areas. As a result of this lengthy yet essential process, it may now prove difficult to:

- push high levels of new funding rapidly through the SCF system;
- hire qualified staff;
- locate new impact areas and/or new villages and adapt the CBIRD model to their needs;
- guard against financial and other mismanagement; and
- at the same time protect the high quality of SCF's approach.

Equally challenging is the need to balance increased funding with SCF's goal of building community self-sufficiency. There is pressure on the BFO to increase the number of sponsored children in Bangladesh in order to absorb the recent influx of new sponsors. That pressure appears to be a greater concern among BFO staff than any counter pressure to phase SCF out of any impact areas which are approaching self-sufficiency. The logical way to

strike the optimal balance would be to expand into new villages and impact areas while phasing-out of existing villages. SCF has said it will do both "as soon as possible", but it is proving easier for SCF to remain in existing villages and postpone starting up new ones. The result is that for several years SCF has neither added on nor phased-out of a single new village.

These conflicting program objectives are a matter of some concern to the top BFO staff; they need to be faced squarely both by SCF in Dhaka and Westport and by AID/Washington. The issues involved are complex. They affect not only SCF but all development agencies which are receiving unprecedented financial and political support within the US, agencies which have begun to test the theory that real development means building self-reliance and phasing-out foreign funds and personnel.

VI. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

A. General

1. SCF's integrated approach including health, nutrition, family planning, water, and sanitation in community development has begun to prove its effectiveness. A decade of responsive planning and careful evaluation by SCF of its HNFP activities in Bangladesh has resulted in what may become a model for low cost, community-based, rural PHC. The HNFP program is carefully designed, well managed, and successfully integrated into SCF's multisectoral development program. SCF's village based integrated development, relying on women and men who live and work under regular supervision in the impact area, seems to be an effective and efficient strategy for providing house to house PHC. Since 1982 the HNFP program has led to decreased infant and child mortality rates, increased family planning acceptance rates, and rates of natural increase which, if they continue, could prove to be significantly better than the national averages. We recommend that this SCF model be considered for adaption and replication in other areas.

2. Benefits of the SCF program appear to reach many unserved groups. Special emphasis is placed on identifying and assisting all socio-economic groups, including women, the poor, and landless. Broad community participation is strongly encouraged and is basic to the HNFP program's effectiveness.

3. While cost recovery to pay the recurrent costs of HNFP services is being introduced on a limited scale, SCF's purpose, to build self-sustaining development, is only beginning to be

achieved. None of SCF's 17 villages has established its own self-managed, self-financed program which does not depend on continued support from Dhaka or Westport, and none have scheduled a complete phase-over of control from SCF to the VDC. SCF's view is that it is "highly unlikely, if not impossible," to assume VDCs would assume costs of continued HNFP activities at this time, as it is not viewed as major village priority. The evaluators, however, found some VDCs anxious to take increasing responsibility for their program and confused by SCF's ambivalence about the VDC's role in that process. In any case, we recommend that concrete steps be taken as soon as possible to clarify SCF policy and plan phase-over in as many villages as possible while new impact areas are being developed. We believe that the benefits of at least one village phase-over, particularly the opportunity to learn lessons from that process, clearly outweigh the acknowledged risks.

4. Developing the current HNFP program has required many years of testing and adaptation to varied local needs. In 1983, despite ten years of SCF assistance, infant and child mortality was higher than the national average in SCF impact areas. AID should not expect integrated health programs to have an immediate, measurable impact on infant and child mortality.

5. SCF's most important contribution would be to demonstrate that primary health care in Bangladesh can be financed from the profits made by cooperative income generating activities. SCF staff in Dhaka have discussed testing such mechanisms for some time. They should begin such tests as soon as possible, particularly in villages prepared for phase-over.

6. Replication of the CBIRD and HNFP strategies in new villages or impact areas will take time, caution and patience. Rushed expansion under pressure from donors could lead to mismanagement, community distrust, and lack of sustainability. SCF should proceed carefully into new impact areas.

7. Education and motivation activities in HNFP should be more specifically directed towards special groups already organized by the program, e.g., women's savings groups and landless groups.

8. The HNFP program has not attempted to work with enough of the health-related private sector (traditional practitioners, local pharmacists and retail shop owners, etc.) who continue to provide costly and ineffective, sometimes unhealthy "remedies." We recommend that SCF test ways for these private sector groups to be integrated into the CBIRD system, appropriately trained in HNFP, and provided with incentives to promote health services and/or products (perhaps in cooperation with the social marketing projects).

9. Men are generally left out of the health, nutrition, family planning, and sanitation education process. We strongly support SCF's current plans to train male health aides who can strengthen efforts to provide health education to male family members, and we recommend that SCF monitor their effectiveness so that this concept can be replicated.

10. Strict separation of the sexes prevents not only health and family planning education activities for men by female PDWs, but also clinical care for women by male MAs. We support SCF's

plans to train Nurse Midwives to be added to the field staff in all impact areas.

11. The lack of a Project Director (arriving in spring of 1985) may have led to postponement of some important decisions, particularly regarding plans for phase-over. We recommend that SCF Westport delegate as much authority as possible to its field staff in making programming decisions which affect areas most familiar to them.

12. SCF's intention is to build the capability of local staff within Bangladesh to eventually manage its operations in Dhaka without any long term expatriate staff. Indeed, SCF's Bangladesh program has been managed competently without an expatriate Director for over nine months. We encourage SCF to plan for phase-over of the Bangladesh Field Office to local control as soon as possible - just as we support SCF's movement toward phase-over of control in villages.

B. Maternal and Child Health

1. SCF's approach to MCH, integrated into the overall development of the community, is now working well. During the last three years, this project apparently helped to lower infant and preschool child mortality below previous levels and below national averages. The SCF approach has several outstanding features which should be supported by SCF and considered for replication: a) the HNFP strategy depends upon the outcome of monthly home visits by neighborhood workers to every family on a regular basis; b) special follow-up with nutrition counselling and encouragement is provided to mothers whose children are shown to

be "at risk" nutritionally; c) workers refer pregnancy cases where the mother is showing danger signs of pregnancy, and d) refer infectious disease cases early in illness.

2. The integrated CBIRD system ensures increased availability of food directly to families through agricultural programs, fish raising, and kitchen garden programs; indirectly, food is available through income generating projects which increase the family capacity to grow or acquire food. CBIRD helps to make potable water and latrines available to most families and simple curative care has become available through PHC centers which complete the spectrum of village based services.

3. Increased child-spacing and limitation of family size means that mothers tend to breastfeed the last child longer and rebuild their own nutritional stores between pregnancies.

4. The HNFP program enhances the possibility of women speaking up in the family about their own health needs and the needs of their children, and taking action.

5. Village workers teach the use of home-made oral rehydration solutions to most families so that at least one family member is competent to treat diarrhea, the major cause of infant and child morbidity and mortality.

6. We consider this to be one of the most comprehensive and effective PHC programs in rural Bangladesh. Though there are others such as the CARE program which have a similar approach, we find the SCF program unusual in its ability to document impact.

7. Major difficulties remain. MCH activities are still relatively new and somewhat uneven. Immunization is still largely

unavailable in some impact areas. Arm circumference instead of weighing is used for screening in most areas. Yet universal screening of all children and growth monitoring of "at risk" children, utilizing weight for age measures, has proven to be more effective, though more difficult, than using arm circumference measures because arm circumference picks up only the already seriously at risk child. We commend SCF highly for addressing these needs as rapidly as possible. Both immunization services, weight for age screenings, and use of the new road-to-health cards should be provided in all impact areas by the end of 1985.

8. The socio-economic classification now being used for recovering medical costs and allocation of other resources needs to be updated, and should be done during the next survey. The ability of a family to feed itself should be considered an important criterion. In this connection measures used by BRAC, International Union for Child Welfare and other NGOs may be examined.

9. Some of the constraints faced in the HNFP program, and the steps SCF is taking to overcome them, are shown in Appendix 27. We endorse SCF's efforts in each case and urge AID and the GOB to support those efforts where appropriate.

C. Family Planning

1. SCF's family planning activities are successful. They have led to high levels of family planning acceptance, well above the national average in all impact areas except the largest (Nasirnagar). SCF has designed an efficient monitoring system to help locate, motivate, and follow up acceptors; and an efficient

referral system to government services for women seeking IUDs or ligations. Family planning acceptance appears to be enhanced by the integrated HNFP approach: for example, lower infant and child mortality seems to be correlated with higher acceptance in every impact area except Nasirnaqar. The SCF approach should be documented and adapted for new areas.

2. Among permanent methods, nearly all are tubal ligations for women; among temporary methods, condom use is very low. Few men are being contacted or motivated by SCF's village workers, nearly all of whom are women. There is an urgent need to concentrate on motivation of men. We again applaud SCF proposals to introduce male health aides to work with female workers to reach male clients more effectively. Appropriate training for the male workers will be important.

3. Acceptance is concentrated at higher parity levels; fewer women with less than four children are motivated to accept, even for spacing pregnancy. Although it will be difficult, SCF workers should concentrate on lower parity couples (three children or less). Since many acceptors now switch methods, it may be possible to convince clients to use pills first and switch to IUDs or ligation at a later stage. The need to reach lower parity women will be specially important for areas where the prevalence rate is already high, since higher parity women are early acceptors.

4. Most family planning training is provided on the job by the HNFP Program Officer and is somewhat limited. Few workers are trained by such institutions as BRAC which have specialized family planning training courses; linkages with government are

limited to contraceptive supply and referrals; sharing information and joint training have not been attempted. We encourage SCF to provide more skill-based training in family planning for PDWs, CPs, SDCs, FCs and TBAs. Such training would be especially useful for PDWs who, as multipurpose workers, have limited time available for family planning services and therefore, need to utilize such time efficiently. Training should be in collaboration with one of the specialized groups in Dhaka.³⁰

5. More joint training programs and sharing of data and experiences with government could have beneficial effects for the SCF impact areas and would improve the possibility of replicating successful measures through the government program.³¹

6. SCF faces occasional shortages of contraceptive supplies from the government. The SCF field staff have coped with this problem, however SCF should have an alternative source of contraceptives ready so that the service is not disrupted at any point. Arrangements could be made with the social marketing project in Bangladesh, possibly in conjunction with efforts to involve retailers in SCF villages in private sector HNFP activities.

7. The overall review of the family planning services in each impact area, done periodically by the HNFP Program Officer, should be more frequent. The Program Officer needs more support staff and/or data collection staff.

8. Family planning education is quite limited and provided primarily to eligible women. It can be gradually expanded to reach all savings groups, agricultural cooperatives, school and traditional men's groups.

D. Monitoring

1. SCF's impact monitoring system, in operation since 1982, is effective not only for management but also for village services: identifying a pregnancy, birth, or death help village staff to locate and follow up families with special needs - particularly related to income, nutrition, and water supply - at a time when their help is most appreciated. It should be adapted and replicated for use by other organizations in Bangladesh.

2. Data collection is time consuming for field workers. Streamlining is required so that the number of registers can be reduced and unnecessary repetition is avoided. Consistency is essential; we found that occasionally the format of reporting changes with a change of field workers.

3. Some important information, such as population of the village, is missing in the impact monitoring form. The registers and the reporting forms are useful, but their use will be improved if information is collected after a careful review of what data is needed, for project planning and implementation.

4. The field level workers are informed about the numbers they are collecting. Some reorientation and short training in data collection and use will enhance their data collection and utilization abilities.

5. At the headquarters (Dhaka) level, analysis, interpretation, and use of HNEP data for operational decisions and action are inadequate. The impact monitoring system provides far more HNEP data than can be processed, analyzed and utilized effectively; the HNEP Program Director does not (and should not)

have time to devote to data analysis which could help strengthen HNFP planning and management.

6. SCF is in the process of setting up a monitoring and evaluation unit. A major part of this new unit's task will be collection, analysis and feedback of HNFP data. We support this effort: if the new monitoring and evaluation unit can be organized effectively, it will certainly contribute to improving program impact.

7. We specifically recommend that SCF hire and train a health operations research or health information specialist, particularly to process and analyse MCH and family planning data, possibly in connection with SCF's new Child Survival grant.³²

8. SCF might consider procurement of one (or two as back-up) computers for tabulation and analysis of SCF's HNFP (and possibly other) data from all impact areas.

9. SCF should consider use of the pre-packaged MCH/FP data analysis software, currently being developed by the MCH/FP Extension Program of ICDDR,B, to tabulate and analyze SCF MCH/FP data. The three main purposes of this computerized MCH/FP operations research are:

a) To take advantage of the excellent quality and quantity of data now being collected from impact areas (but not sufficiently tabulated or analyzed for planning and management purposes);

b) To analyze data in order to improve the planning and management of day-to-day SCF activities in HNFP to ensure that manpower, equipment, and supplies are being utilized efficiently

and effectively to identify, prevent, and treat the major causes of infant and child morbidity and mortality; and

c) To document and disseminate to ICDDR,B, the GOB, and other health organizations, the findings and lessons learned about which child survival strategies are effective, and why.

E. Phase-Over

1. Despite at least seven years of discussion, SCF has not phased out of any impact areas or villages. We strongly urge SCF to test out its own plans for phase-over in Kulkurmai and/or other villages, even if difficulties arise, in order to learn important lessons which can be applied in future plans. In Kulkurmai SCF has a unique opportunity to demonstrate such a transition. Obviously there are apprehensions, but it is certainly worth a trial.

2. We recommend that the following steps may be initiated if SCF wants to implement phase-over:

a) A definite schedule should be developed for phase-over;

b) The VDC should be registered with the Ministry of Social Welfare. Prior to registration discussion may be held with the government and the VDC to develop specific terms of reference for the VDC;

c) Well defined rules and procedures should be laid out for the future financing of the VDC. Such rules should maintain the flexibility which now exists in decision-making and implementation;

d) The VDC's relationships with local government and non-government bodies/should be defined;

e) SCF should assist the VDC to develop a comprehensive two or three year action plan; and

f) In the initial years after phase-over SCF may continue to provide guidance and technical support to the village if requested.

3. In the future, phase-over should be planned ahead of time. The first step would be to develop a village development plan (not exceeding 7-8 years). Increased decentralization of functions to the VDCs and subcommittees must be planned in advance. An advisory committee may be set up to implement the phase-over.

4. Only one of the impact areas has a subcommittee for HNFP. Sectoral subcommittees can be very effective vehicles for the promotion and implementation of HNFP projects and for involving the local people to a greater extent. Since HNFP has become a major element in SCF's CBIRD approach, it is necessary to have HNFP subcommittees for all villages to ensure a strong health program, particularly after phase-over.

5. Though many VDCs are quite highly motivated, they need to be more responsive to HNFP issues and more actively involved if HNFP is to be effective in phase-over villages. VDC members still attach disproportionate importance to agricultural productivity as compared to HNFP.

6. SCF should test a health maintenance or health insurance scheme, linking income generation projects with PHC services in villages selected for being more highly motivated to support health services and income generation activities. By showing

that the profit from the community's own economic activities can generate funds for preventive health measures, SCF can move closer to its goals of community self-reliance.

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Three SCF staff members, however, played a vital role in drafting important parts of this report, most of which are attributed to them, particularly in Sections II, III and IV and many appendices. Dr. Gretchen Berggren, medical advisor to SCF in Westport and a well-known authority on MCH, provided invaluable advice and took the lead in MCH data collection and analysis. Dr. Afzal Hussein, the experienced Bangladeshi Medical Director of SCF Bangladesh, also played an essential role in providing unlimited facts and figures, and perceptive explanations of them, to the evaluators. Dan Gerber, SCF Bangladesh Advisor, patiently planned and coordinated the entire evaluation visit and contributed many ideas to the report. Special thanks go to them

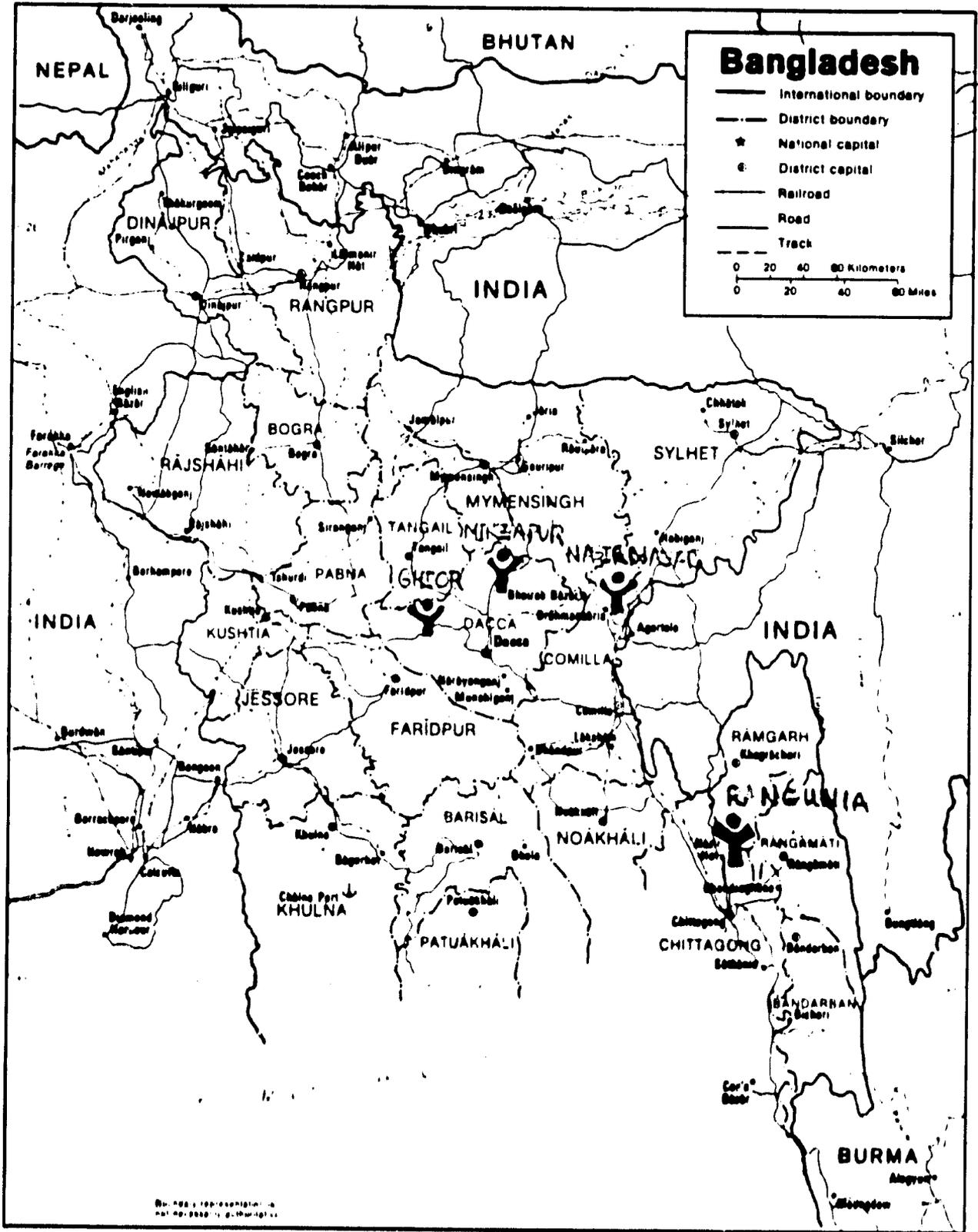
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One of SCF's many impressive features in Bangladesh is the staff's willingness to generate and accept constructive self-criticism and to work to improve the program. That is why most of the findings which we summarize in this report grew directly or indirectly from discussions with (and memos from) senior SCF staff in Bangladesh and Westport. SCF staff are well aware of the majority of our conclusions, and are actively involved in overcoming the many constraints they have themselves identified during frequent internal evaluations and continuous supervision and monitoring.

Helpful comments on the text were also provided by Dr. Robert Northrup, Technical Director of MSH's PRITECH project (Technologies for Primary Health Care) and Professor of Community Medicine at the University of Alabama, and Dr. Marc Mitchell, Staff Associate at MSH.

Questions and comments about this report are welcome and should be addressed to Nicholas Danforth at MSH.

SCF Impact Areas in Bangladesh



APPENDIX 2

CBIRD IN BANGLADESH*

After 1972 SCF shifted its program emphasis to 'community-based integrated rural development' (CBIRD). Essentially, CBIRD aims to increase self-reliance in villages in which SCF operates. This includes the election by villagers of a Village Development Committee (VDC). SCF's Field Coordinators (male) and Social Development Coordinators (female) are community development agents who live and work in the villages they serve. These FCs and SDCs serve as an important link between the community and the supporting services offered by Government or other agencies. The SCF field staff also assist the VDCs in planning and implementing development projects which are related to the villagers' needs and which are designed to increase income and improve the quality of life in the village as a whole. These projects cover all major sectors of development including agriculture, health, nutrition, family planning, education, public works, as well as activities for children and income-generation projects for the landless, women, and youth.

In addition to the services of its field staff, SCF provides funds to the VDCs for specific projects, which are matched by village self-help inputs wherever possible. SCF aims to encourage this self-sufficiency process to the point where the agency can eventually withdraw from the village. Although the population covered is relatively small, SCF regards its program as demonstrating one approach to community development appropriate for rural conditions in Bangladesh.

* Gerber, Dan, and Dr. Afzal, Memo on SCF activities in Bangladesh, Dhaka, 1985.

APPENDIX 2 (Cont.)

Currently, SCF's program includes a total of 17 villages: four in Rangunia, five in Nasirnagar, four in Ghior and four in Mirzapur. There is close cooperation with Upazilla and union officials, under the aegis of the Ministry of Local Government, Rural Development and Co-operatives.

SCF's integrated development approach to meeting children's needs in Bangladesh deserves note. To help children in a community, SCF works both to help and to involve all families at all social and economic levels to solve problems related to income, education, family planning, food production, etc. (sectoral integration). SCF also works to involve as many people and institutions as possible in solving those problems. That vertical integration aims at involving village, Thana, and district level committees, regional and central government offices, PVOs, and foreign assistance agencies in joint efforts.

SCF's program operates in 17 villages containing nearly 44,000 people. Each village contains several paras or (sub-divisions) containing several paris, clusters of households with related families. The primary activities of CBIRD in Bangladesh in the five sectors other than health are shown below; each has a direct or indirect effect on health.

Agriculture: loans for fertilizer, insecticide seeds and irrigation projects to groups of small farmers for a collective block of land; mortgaging cultivable land for landless; loans for draft power; livestock raising; fish cultivation; and tree planting.

APPENDIX 2 (Cont.)

Education: student assistance in the form of supplies and tuition fees for primary and secondary school students; teacher's salaries for schools not yet recognized by the government; experimental playschools; a program for out-of-school children in one area; and construction/repair of school buildings.

Public Works: construction and repair of roads, bridges, culverts, grain storage sheds and community centres, including the use of the materials and techniques recommended by the Intermediate Technology Development Group (ITDG).

Income Generation/Landless: loans to individuals or groups to establish small businesses, purchase rickshaws, improve weaving facilities, build grain storage facilities, purchase rice husking machines, etc.

Detailed Description of Each HNFP Activity

<u>Objective and Activity</u>	Years when activity began:			
	<u>Mirzapur</u>	<u>Rangunia</u>	<u>Nasirnagar</u>	<u>Ghior</u>
1. Raising awareness regarding health:				
- family level - through PDW house visits;	1981	1976	1982	1982
- group level - organized group meetings, mothers class, at risk children's mothers class;	1980	1982	1983	1982
- school teaching program by field staff, especially MAs;	1983	None	1984	None
- VDC and other community committees - orientation by SCF staff;	1983	1983	1983	1983
- observation of a special health week, day and campaign or drives - sanitation, cleanliness, grow more food (kitchen garden), vaccination etc.;	1980	1983	1982	1982
- interpersonal contacts by SCF staff;	mid-70s	1972	mid-70s	1978
- TBA training program;	1985	None	1984	1984
2. Insure basic curative service facilities within the reach of every villager:				
- establishing a Primary Health Care Center within the reach of every villager;	1982 (1)	1976 (4)	1984 (3)	One GOB clinic since 1970s
- providing medical personnel (Medical Assistant, Paramedic, or Village doctors) at village level for consultancy and services;	1981 (1 MA)	1976 (3 village doctors)	1983 (1 MA, 4 Paramedics)	1986 or 87 SCF MA planned
- making common drugs/medicines available at village level;	1982	1976 No para level staff	1983	Limited since 1982

Detailed Description of Each HNFP Activity

<u>Objective and Activity</u>	Years when activity began:			
	<u>Mirzapur</u>	<u>Rangunia</u>	<u>Nasirnagar</u>	<u>Ghior</u>
- first aid services at <u>para</u> level (Counterparts & PDWs);	1982		1982	1982
- referral system for complicated cases.	mid-70s	1972	mid-70s	1978
3. Reducing or preventing diarrheal deaths:				
- training every mother and others in the area on preparation and use of oral rehydration salts (ORS) through health education processes;	1981	1982	1983	1983
- making ORS components or packets available at village level (at PHC centres).	1982	None	1982	1982
4. Insure adequate and safe water for every villager:				
- arranging/providing tubewells within the reach of every family (with assistance from UNICEF);	1982	1984	1982	1982
- insure maintenance of all the tubewells through arranging training for the caretakers and through availability of multi-purpose tools and spare-parts for hand pumps at village level.	1984	1984	1984	1984
5. Improving the sanitation system in all the villages:				
- motivation and education on safe disposal of human excreta;	1979	1982	1982	1982
- introducing low-cost latrines, making them available at village level;	1979	1982	None	1984
- assisting poor families in having a latrine;	1979	1984	None	1985
- encouraging families to use garbage pits (compost) and environmental sanitation.	1979	1983	None	None

Detailed Description of Each HNFP Activity

<u>Objective and Activity</u>	Years when activity began:			
	<u>Mirzapur</u>	<u>Rangunia</u>	<u>Nasirnagar</u>	<u>Ghior</u>
6. Create awareness on child spacing and limit family size:				
- motivation and family planning information to every fertile couple;	1979	1976	1979	1979
- insuring contraceptive supplies and regular follow-up to user couple;	1979	1976	1979	1979
- assisting in having IUD, Depo-proven injections, sterilization and post-operative services from the existing local/nearby resources (government and others).	1979	1976	1979	1979
7. Reducing the mortality from immunizable diseases by immunizing the target population of the community against Tetanus, Diphtheria, Pertussis, Measles, Polio and T.B.:				
- developing local manpower for immunization program training SCF staff for dissemination of messages and motivation, training MAs in government EPI programs;	1984	1983	1984	1985
- making vaccines available at village level through procurement from the EPI or other sources;	1984	1983	1985	1986
- motivating, mobilizing, organizing the target population for vaccination coverage.	1984	1983	1985	1986
8. Improving the MCH system/services in the community:				
- identification of pregnant and lactating mothers, counselling on diet (food for two and extra need, minor ailments, danger signs, weaning practice, etc.);	1981	1976	1983	1983

Detailed Description of Each HNFP Activity

<u>Objective and Activity</u>	Years when activity began:			
	<u>Mirzapur</u>	<u>Rangunia</u>	<u>Nasirnagar</u>	<u>Ghior</u>
- Identification and training of local TBAs;	1985	None	1984	1984
- Tetanus Toxoid vaccination for all women aged 12 and over;	1984	1984	1985	1985
- making delivery kits available at community level.	None	None	None	1984
9. Reducing/preventing malnutrition/malnourished children and saving 'at risk' children:				
- providing nutrition education to the family, schools groups and at community level (emphasizing weaning supplements, low-cost balanced diets, etc);	1981	1976	1981	1983
- identification of 'at risk' children (including night blinded); special attention to them (<u>Growth Monitoring</u>);	1983	1983	1981	1983
- assisting and encouraging food production; kitchen garden, demonstrations (vegetables, fish, crop diversification, etc.); providing seeds and seedlings; agroloan; cattle, poultry raising programs; etc.	1979	1976	1980	1980

Detailed Description of Each HNFP Activity

<u>Objective and Activity</u>	<u>Comments</u>
1. Raising awareness regarding health:	
- family level - through PDW house visits;	Single-purpose workers were originally less trained in health than now; even PDWs had less training in last 2-3 years, PDWs and SDCs who supervise them appear far more effective in multi-purpose home visiting. Records of visits kept.
- group level - organized group meetings, mothers class, at risk children's mothers class;	Occasional random meetings are held in all four areas, but are not routine. Usually integrate health with savings or mothers groups. Special events (like floods in two areas) require special meetings (e.g. on ORT, EPI). Not recorded.
- school teaching program by field staff, especially MAs;	No systematic program yet but schools in Mirzapur and Nasirnagar have begun occasional visits by MAs to schools. Most effective when including follow-up visits.
- VDC and other community committees - orientation by SCF staff;	A formal orientation to HNFP held annually plus special discussions when new campaigns begin (e.g. TT for women). VDC has key role. Not recorded.
- observation of a special health week, day and campaign or drives - sanitation, cleanliness, grow more food (kitchen garden), vaccination etc.;	Annual Save the Children Day of celebration and festivities honoring children organize and local officials (out-of-school children included). Special campaigns organized as needed. Not recorded.
- interpersonal contacts by SCF staff;	Frequent informal meetings of individuals outside of home visits are an important way for staff to collect or spread important health information, find 'at risk' children, become trusted and respected, etc.
- TBA training program;	Community-level training of TBAs and dais has been initiated in a few villages but is not systematic and includes recognition/referral of 'at risk' pregnancies, weaning foods, nutrition, breast-feeding, ORT, childbirth, etc. Not recorded.

Detailed Description of Each HNFP Activity

<u>Objective and Activity</u>	<u>Comments</u>
<p>2. Insure basic curative service facilities within the reach of every villager:</p> <ul style="list-style-type: none"> - establishing a Primary Health Care Center within the reach of every villager; - providing medical personnel (Medical Assistant, Paramedic, or Village doctors) at village level for consultancy and services; - making common drugs/medicines available at village level; - first aid services at <u>para</u> level (Counterparts & PDWs); - referral system for complicated cases. 	<p>Completed in all areas except Nasirnagar, where the government maintains a clinic with a doctor and an MA.</p>
<p>3. Reducing or preventing diarrheal deaths:</p> <ul style="list-style-type: none"> - Training every mother and others in the area on preparation and use of oral rehydration salts (ORS) through health education processes; - making ORS components or packets available at village level (at PHC centres). 	<p>PDWs, MAs, SDCs teach mothers ORT in homes when children are dehydrated or 'at risk' for diarrhea and teach groups of village women generally. Numbers of women educated or women able to mix ORT not monitored.</p> <p>ORS components seem to be generally available: <u>gur</u> (brown, raw sugar produced locally) and salt, both available in village shops. Some poor families lack <u>gur</u>, however, and need help. ORS packets from UNICEF supplied by MOH available free in centers and sold in some shops for a few cents. SCF emphasizes strongly using home mixing except in floods or other serious diarrhea outbreaks.</p>
<p>4. Insure adequate and safe water for every villager:</p> <ul style="list-style-type: none"> - arranging/providing tubewells within the reach of every family (with assistance from UNICEF); 	<p>UNICEF provides some pumps (including a new efficient, low maintenance, deep well type) SCF purchases others. SCF and village volunteers install and maintain them. Most pumps are located within a short walk of every home. Numbers of pumps are monitored.</p>

Detailed Description of Each HNFP Activity

<u>Objective and Activity</u>	<u>Comments</u>
- insure maintenance of all the tubewells through arranging training for the caretakers and through availability of multipurpose tools and spareparts for hand pumps at village level.	Families near (or nearest) pumps are normally trained and required to clean the washing area and maintain the pumps as a condition of the convenient location.
5. Improving the sanitation system in all the villages:	
- motivation and education on safe disposal of human excreta;	Includes proper cleaning and use of latrines, safe disposal when no latrine available, children's excreta disposal.
- introducing low-cost latrines, making them available at village level;	Cement latrine slabs sometimes available from government (UNICEF project) are subsidized but still costly (\$8). SCF also builds latrine slabs for sale at subsidized prices. Both supplies limited and too expensive for some families. SCF now encourages very low cost latrines and demonstrates them in several villages (made with tin squat plate and bamboo/leaf enclosure).
- assisting poor families in having a latrine;	In Mirzapur the PHC Sub-committee loans money to poor families to buy latrines. In Ranguina the VDC also provides some assistance. In Ghior, SCF staff have free demonstration latrines. In all areas, volunteer labor is required.
- encouraging families to use garbage pits (compost) and environmental sanitation.	Many families dig and use pits for compost for fertilizing gardens as well as for cleanliness. Tradition of cleanliness around <u>baris</u> and <u>para</u> is encouraged. In Mirzapur this effort has been continuous, in others it's sporadic, during campaigns. Not monitored.
6. Create awareness on child spacing and limit family size:	
- motivation and family planning information to every fertile couple;	Introduced in Ranguina in 1975, and fully under all areas 1981 (Nasirnagar).
- insuring contraceptive supplies and regular follow up to user couples;	All eligible couples have family planning information motivation, and MOH supplies (pills and condoms) for home visits of the PDWs. Supplies sometimes unavailable from MOH. For details, see Section III.

Detailed Description of Each HNFP Activity

<u>Objective and Activity</u>	<u>Comments</u>
<ul style="list-style-type: none"> - assisting in having IUD, Depo-proven injections, sterilization and post-operative services from the existing local/nearby resources (government and others). 	PDWs assist and accompany women to MOH family planning centers; SCF subsidizes transport costs. Depo injections provided by MOH in home visits. PDW and MA provide backup in emergencies. See Section III.
<p>7. Reducing the mortality from immunizable diseases by immunizing the target population of the community against Tetanus, Diphtheria, Pertussis, Measles, Polio and T.B.:</p> <ul style="list-style-type: none"> - developing local manpower for immunization program, training SCF staff for dissemination of messages and motivation, training MAs in government EPI program; 	All SCF staff in areas are trained in motivation because distrust of immunizations is widespread. MAs are trained in actually doing vaccinations by the MOH EPI staff in Dhaka.
<ul style="list-style-type: none"> - making vaccines available at village level procurement from the EPI or other sources; 	Mirzapur is only impact area where immunization has been provided directly in the village (by SCF collaboration with CARE, which has similar PHC project nearby). In other areas, EPI program of MOH is not available. SCF is now designing plans to provide its own immunizations using MOH vaccines after 1985.
<ul style="list-style-type: none"> - motivating, mobilizing, organizing the target population for vaccination coverage. 	SCF continues to motivate people to obtain vaccinations from nearest clinic and/or hospital, and is preparing people for eventual SCF program
<p>8. Improving the MCH system/services in the community:</p> <ul style="list-style-type: none"> - identification of pregnant and lactating mothers, counselling on diet (food for two and extra need, minor ailments, danger signs, weaning practice, etc.); 	Counselling provided to women by PDWs in home visits and by PDWs, Counterparts, and SDCs in women's groups. Not monitored.
<ul style="list-style-type: none"> - identification and training of local TBAs; 	Begun in some villages by SDCs and SCF HNFP Program Officer with limited numbers of TBAs. Will be expanded when SCF Nurse Midwives are available to do training and supplies.
<ul style="list-style-type: none"> - Tetanus Toxoid vaccination for all women aged 12 and over; 	Provided in Mirzapur directly to village by SCF/CARE staff, by women in other areas must go to clinics at varying distances from their villages.

Detailed Description of Each HNFP Activity

<u>Objective and Activity</u>	<u>Comments</u>
- making delivery kits available at community level.	SCF provided kits in the past @ 45 cents each (from MOH). SCF now plans to make up its own kits at lower cost, beginning with new Nurse Midwife program.
9. Reducing/preventing malnutrition/malnourished children and saving 'at risk' children:	
- providing nutrition education to the family, schools groups and at community level (emphasizing weaning supplements, low-cost balanced diets, etc.);	Families and women's groups are most likely to receive education. Activity in schools is limited (see objective #1).
- identification of 'at risk' children (including night blinded); special attention to them (<u>Growth Monitoring</u>);	Monthly visits by PDWs to every family and word of mouth information between visits usually insures prompt identification of 'at risks.' Follow-up with daily or frequent visits for ORT and nutrition demonstrations and food production (see below) is essential part of SCF approach.
- assisting and encouraging food production; kitchen garden, demonstrations (vegetables, fish, crop diversification, etc.); providing seeds and seedlings; agrolan; cattle, poultry raising programs; etc.	Follow-up in cases of malnutrition includes long-term counselling and assistance to families with poor diets, both in the context of nutrition and income generation. Integrated nature of the SCF/CBIRD approach enables PDWs and SDCs to help needy families obtain loans, seeds, livestock etc.

APPENDIX 4

DEVELOPMENT OF MIRZAPUR HNFP PROGRAM*

As a result of VDC discussions with SCF about local priorities, SCF established a centrally located Primary Health Care (PHC) Center supervised by a paramedic. It provides basic curative services to all four villages in the impact area, as well as multi-purpose health workers (Para Development Workers or PDWs), each of whom is responsible for HNFP and women's program activities. This second approach began in Mirzapur in 1979 and has since been expanded to our two other impact areas, Nasirnagar and Ghior.

Since the Mizapur area is compact, with fairly good inter-village communication, it was decided that one centrally located health care facility could serve the whole area. In this way, administrative and maintenance costs could be minimized. Before going ahead with its establishment, however, an inter-village health care committee was formed to plan and manage the various health-related activities. The committee's first assignment was daunting: organizing the PHC Center's construction, from donation of labor for earthwork (from the landless) to collecting money for the purchase of land (a tax was levied on the landed participants of SCF's Joint Farming project, on the basis of land cultivated). SCF for its part provided the materials for construction and one-third of the land purchase. The PHC Committee, which consists of 12 members elected every year, handled the center's financial books with the assistance of SCF's Field Coordinator.

* Adapted from Dr. Afzal's memos to evaluators, Dhaka, Feb. 1985.

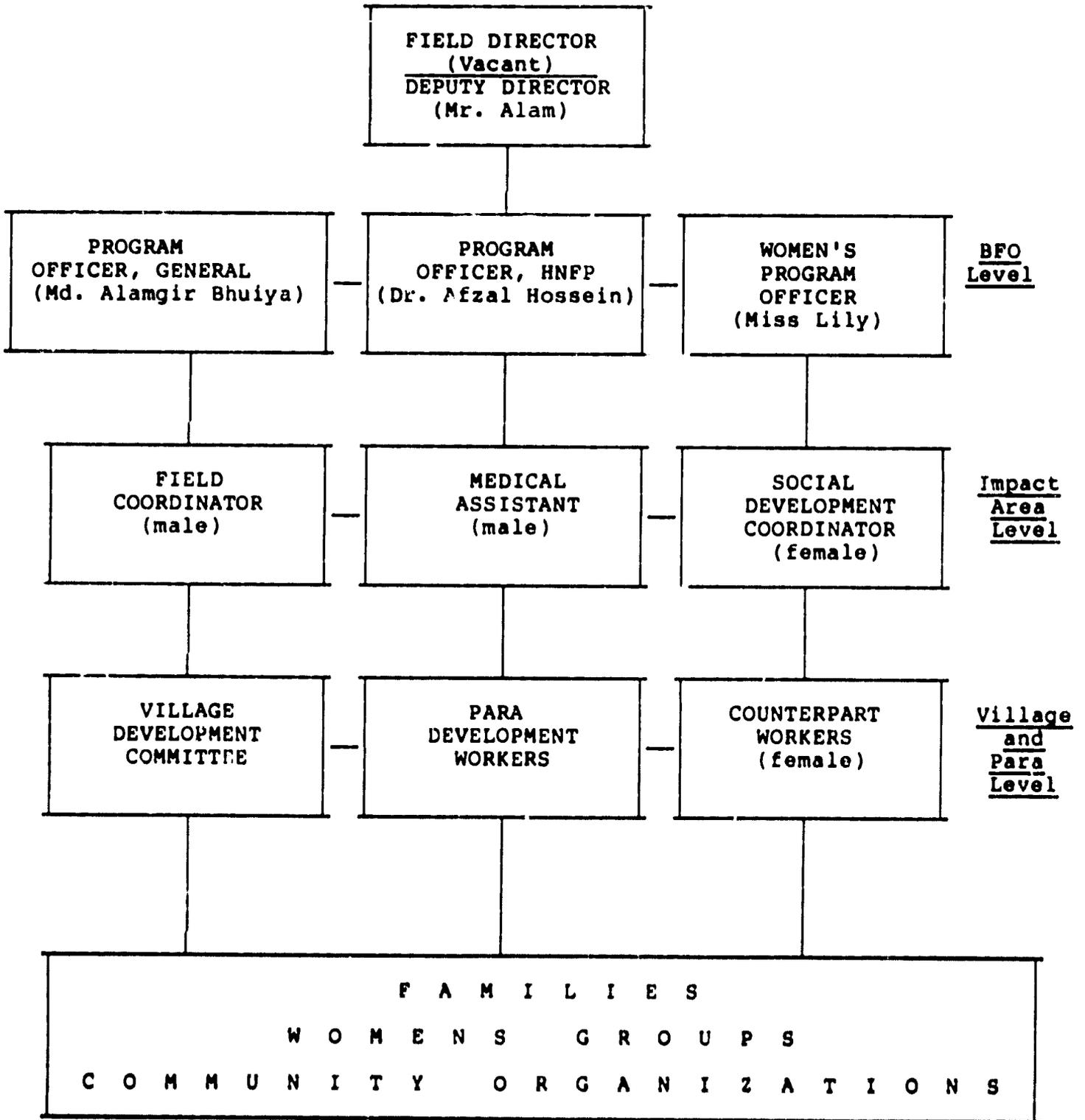
APPENDIX 4 (Cont.)

It is also involved in organizing various HNFP-related drives and campaigns.

Since completion of the clinic in 1980, curative services have been provided by a trained Medical Assistant. The clinic is open six days a week from 8:00 am to 2:00 pm, with the Medical Assistant remaining on call 24 hours a day. All the families of our four villages received a health card, color-coded for socio-economic class (determined through the survey on the basis of land holdings, income, food production capability, house type and number of family members/dependents). While health services are provided free to all villagers, the cost of medicine is prorated on the basis of class: medicines vary in subsidy, ranging from 75% (poor) to nil (rich). Records of patients kept by the Medical Assistant for 1981 indicate that 300-400 villagers visit the clinic every month as follows: 10% by very rich families; 11% by rich families; 25% by poor families; 33% by very poor families; and 21% by 'out-of-project' villagers. Of the total users, women and children under five comprise 68% (35% and 33% respectively), and males (over five) 32%. Total medical subsidies amounted to 53%, with the villagers contributing 47% towards their own health care. (The money recovered is recycled into a revolving PHC development fund.)

APPENDIX 5

SCF BANGLADESH ORGANIZATION CHART



APPENDIX G

BANGLADESH STAFF

1. Dhaka

Syed Nurul Alam
Shefali Chowdhury

Acting Director
Secretary

Program:

Aminul Islam
Jeburnessa Lily
Phyllis Forman
Dr. Afzal Hussain
Md. Alamgir Bhuiya
Dan S. Gerber
Md. Ahsanullah
Jahanara Begum
Mashudul Haque

Chief, Program Section
Women's Program Officer
Coordinator
HNFP Program Officer
Program Officer
Program Advisor
Program Typist
Women's Program Assistant
Program Officer (Finance)

Sponsorship:

Q. M. S. Siddique
John D'Costa
Janaidul Haque
Anisur Rahman Mahmud
James S. Soren
Nizamuddin Ahmed
Parag

Chief, Sponsorship Section
Translator/Typist
Translator
"
"
"
"

Admin./Finance:

Ziauddin Talukdar
K. Jasimuddin Ahmed
Kohinooruddin Bhuiya

Admin. Coordinator
Accountant
Admin. Assistant

Maintenance:

Jitendra L. Barua
Md. Jamal
M. A. Majid
A. Mannan
A. Shahid
A. Rahim
Md. Ali
Swapan

Caretaker
Driver
Driver
Night Watchman
"
Poon
Gardener
Cook

APPENDIX 6 (Cont.)

2. Field Staff

Rangunia

Sikha Rari	Multi-purpose Worker
Ranjita Barua	"
Moni Kuntala	"
Manju Barua	"
Sapha Barua	"
Tatini Barua	"
Dr. Kalachan	Clinic Doctor
Mustafa Kamal	F.C.
Shymoli Chakraborty	Women's Dev. Worker
Kanon Bala Saha	S.D.C. (Tarail/Kakjore, Goaldangi)

Mirzapur:

Shyama Das Mukharjee	F.C.
Hasina Begum	S.D.C.
Rokeya Begum	C.P.
Momtaz Begum	"
Ayesha Akter	"
Saleha Alam	"
Helana Begum	P.D.W.
Suraiya Begum	"
Hazera Khatun	"
Rokeya Begum	"
Feroza Begum	"
Joymala Devi	"
Jahura Begum	"
Cyndy Tice, RN, MSN	CARE Administrator

Ghior:

Akhera Hossain	C.P.
Jahanara Begum	P.D.W.
Rezia Begum	"
Rajeda Begum	"

Contract Staff

Ranjit Kumar Chakrabarty	Medical Assistant
Jones D'Cruz	Typist (PACT)
Rina Khan	Artist
Naeem Vargo	Writer/Project Coord.

APPENDIX 6 (Cont.)

Others

Ghior:

Upazila Nirbhai	Officer (UNO)
Mr. Akbar	
Upzila	Engineer
Muhammad Monsur Alamlahar	Chariman
Baliakhora Union	Ghior
Mr. Nasizudlia Bhuiya	U.P. Chairman

Dhaka:

Dr. James Phillips	Director, MCH/FP Project, ICDDR,B
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APPENDIX 7

HNFP TRAINING

SCF's decision to employ local village women in HNFP activities brought out the fact that many of these workers did not have much knowledge about health matters. To correct this situation, HNFP training was held in four phases in each impact area (except Rangunia) for four to five days. The first and second phases, completed for all three impact areas, was a general introduction to basic aspects of HNFP, as well as maternal-child health and nutrition specifically. The third section dealt with family planning and methods of birth control in more detail. The fourth section covered common diseases, and how these can be prevented or cured. In the course of this training, workers learned about oral rehydration, weaning food preparation, night blindness prevention, first aid, methods of contraception, identifying malnourished children, and other practical aspects of HNFP. Dr. Afzal administers a final test to all trainees. Other types of health training that are conducted include:

- TBA training (see below);
- training MAs and village doctors;
- occasional orientation on health for VDCs;
- demonstrating nutrition/cooking techniques (including weaning foods);
- discussing health education;
- identifying, motivating and assisting families needing latrines;
- growth monitoring with arm circumference and how to follow "at risk" children;

APPENDIX 7 (Cont.)

- identifying sites for handpumps; and assisting in installation and maintenance.

Follow-up and on-the-job training is provided to PDWs and CPs continuously by the SDCs and occasionally by the MAs. All HNFP staff are frequently visited by Dr. Afzal who reviews records, discusses important cases and issues, meets VDCs, and even visits some families with urgent health needs.

In 1985 HNFP training will focus on Nasirnagar staff, who have not been trained in all subjects. Other areas have requested refresher courses, particularly Mirzapur. With the new emphasis on extensive and regular growth monitoring, it is anticipated that additional training will be needed in weighing children accurately; filling out and interpreting the weight-for-age graph; and nutrition demonstration and education.

Family planning education has been aided by the government program for family planning through the Family Welfare Centers. Incentives are paid to local women who recruit and bring in other women for "tubectomy" (tubal ligations), and they often accompany their neighbors. Instructions given about the use of condoms, pills, and IUD's are also repeated by the Family Welfare Center workers. The majority of PDWs have either had tubal ligations themselves, or are current users of one of the contraceptive methods.

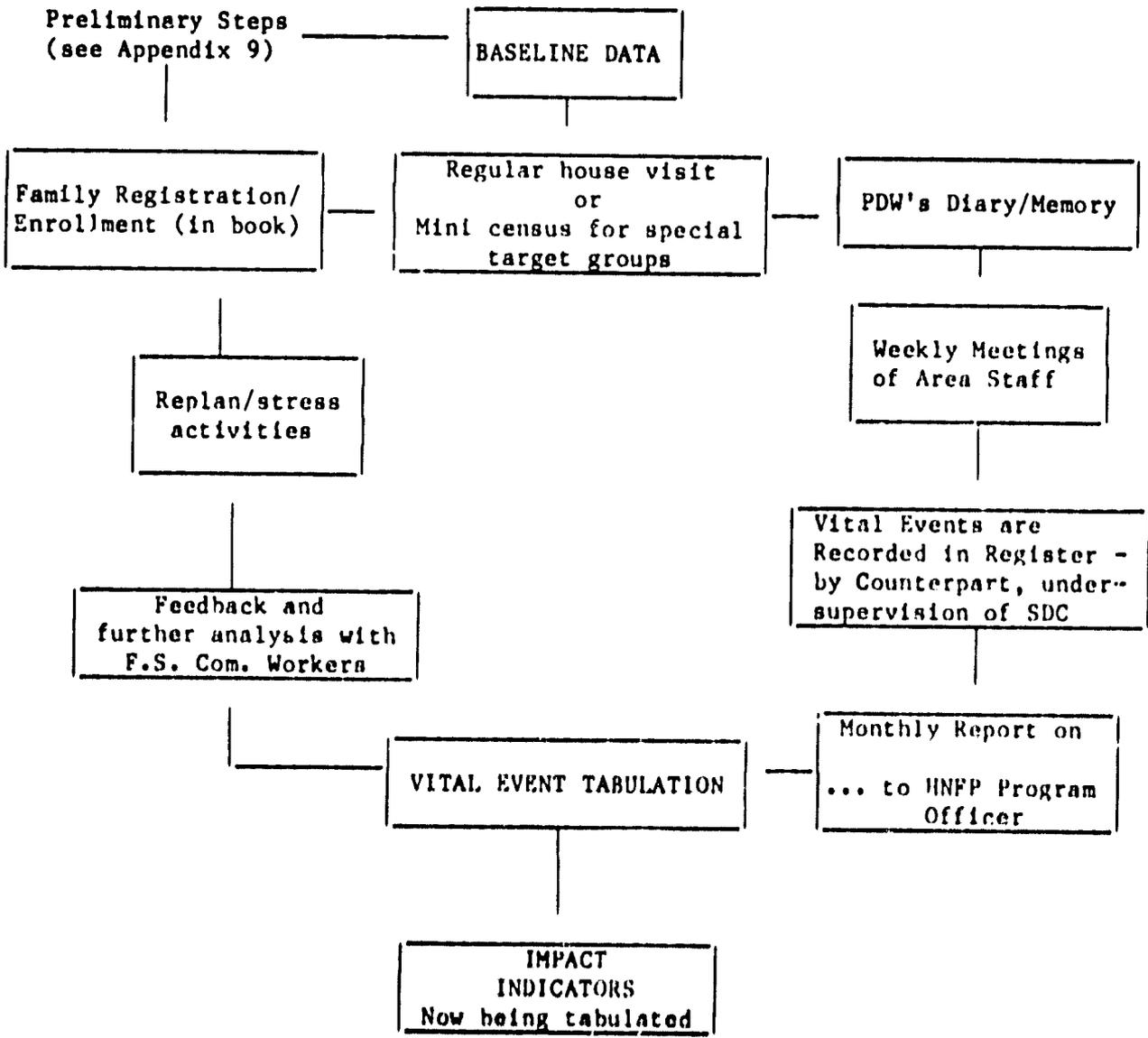
The Women's Program is currently preparing a set of educational materials on nutrition under a special PACT grant for this purpose. Messages and materials are being designed and

APPENDIX 7 (Cont.)

tested by the medical team and experienced women's workers. These materials will be made available to the PDWs and counterparts along with training in their use.

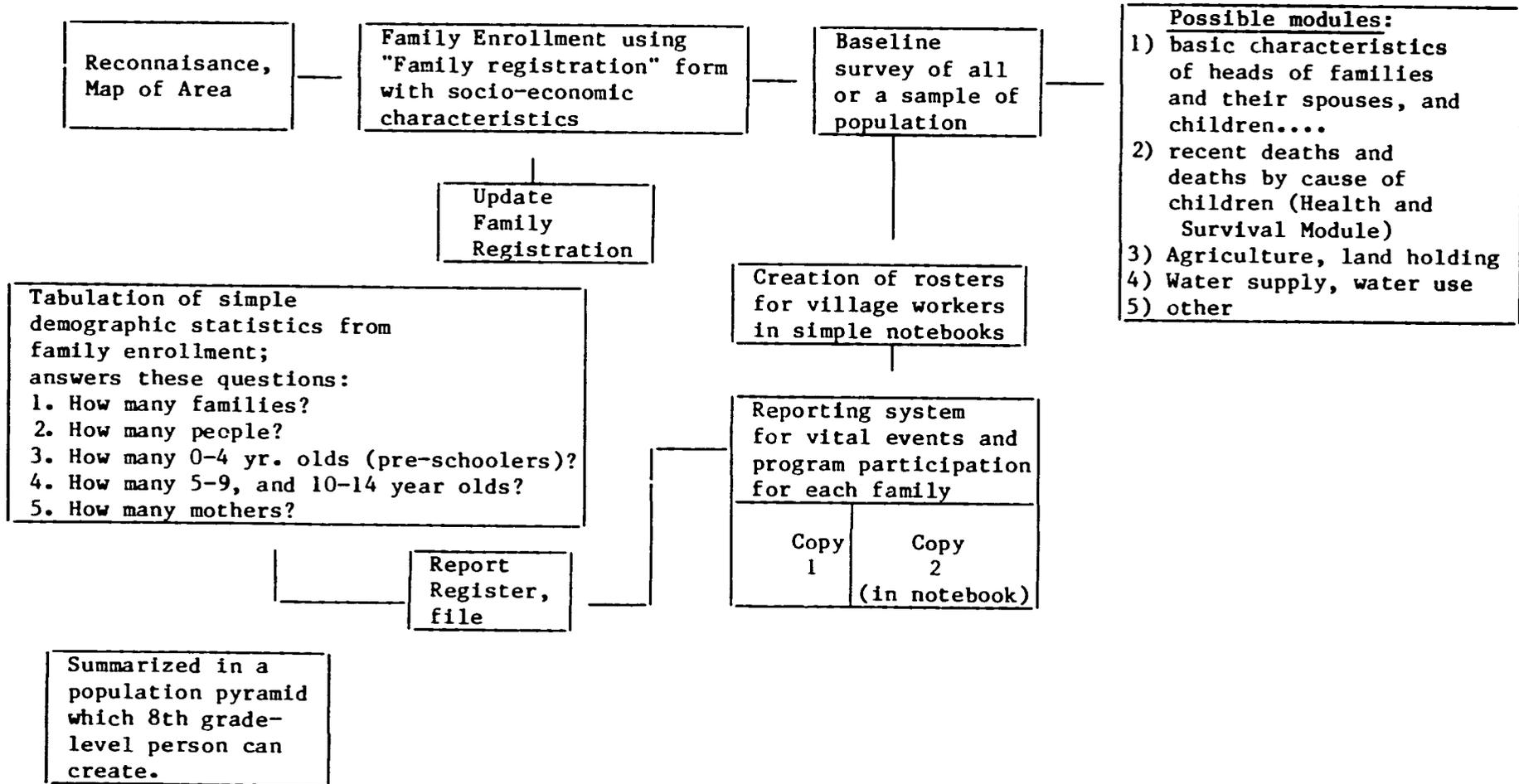
APPENDIX 8

SCF Impact Area
MONITORING SYSTEM



APPENDIX 9

Preliminary Data Collection Leading to Monitoring and Evaluation



APPENDIX 10

HNFP Registers for Impact Monitoring

A. Birth Register

SL. No .	House No.	Para	Name of Father	Soc. Ec. class	Date of Birth	Sex of Child	Birth History/ Remark

B. Death Register:

SL. No.	House No.	Para	Name of the Dead Person	Age	Date	Symptoms/Cause of Death

C. Fertile Couples and Contraceptive Users

SL. No.	House No.	Name of Women	Age	Husband's Name	No. of child. alive		Month of status of contraceptive use					
					Male	Female	July	Aug	Sept	Oct	etc	

D. Under-five children and their nutritional status (Survey/Screening)

SL. No.	House No.	Name of Child	Age	Nutritional Status				Remarks
				Green	White	Red	Date	

E. 'AT RISK' Children's Register and their progress:

SL. No.	House No.	Name of Child	Age	*Father's Name	S.E. Class	Cause of Malnut. Dise- ase	Pover- ty	Lack care	Monthly Wt.		
									July	Aug	Sept

APPENDIX 11
MAJOR HNFP OUTPUTS (SERVICES PROVIDED)

1. Health Education

During PDWs' home visits, discussions focus on the needs and problems of individual families. PDWs are trained to give advice on HNFP. This advice must be simple and remedies must be within the means of the family: "Vaccinate your children against whooping cough; come to the clinic on Wednesday" or "Diarrhea can cause death. Use sugarsalt rehydration solution." The VDC, in turn, provides logistic support and backing for such drives. All education activities are meant to provide villagers with the knowledge they need to cope with day-to-day health problems, and to acquaint them with simple remedies which they can apply using resources available in their home.

2. Maternal Health

An important task of PDWs is to identify, assist and report pregnant women. PDWs record the pregnancies and report to the CP the health education they have provided. In particular, PDWs are trained to:

- identify the four "danger signals" of a possible high-risk pregnancy: swollen legs, headaches, paleness (anemia), and vaginal bleeding;
- refer high-risk women to the MA or nearest hospital; and
- encourage mothers to eat nutritious meals and to overcome the many taboos prohibiting certain foods during pregnancy and lactation.

Most PDWs we interviewed knew most of all of the danger signals, and referrals seemed to be made and recorded accurately.

3. Growth Monitoring

Growth monitoring of children under five is a specific task of all PDWs during their monthly visits to every family. In 1978, SCF developed a weight-for-age home based monitoring system for Bangladesh, using scales showing "Seers" (one Seer is about 9/10 of one kilogram); the MOH had no "official" system until 1984. In 1979 and 1980 some of SCF's multipurpose workers tried the new system; many mothers were given SCF's growth charts for their children. However, such regular weighings proved technically difficult and very time consuming, for one, even two, PDWs. Scales were difficult to obtain and often inaccurate. Many mothers strongly resist weighing (because they fear "evil spirits"), so it was decided to use less accurate but easier arm circumference measures instead. Now arm circumference screens are held annually in all areas except Mirzapur, which does weighings. "At risk" children are identified by the PDW and follow-up needs identified by the PDW, CP, and SDC. While "at risk" children are reported to Dhaka, the degree of malnutrition is not.

4. Nutrition Education

The most important aspect of growth monitoring, whether by weight or by arm circumference, is that it must be used as an educational tool, not only to alert the family that the child is at risk but also to motivate and demonstrate changes necessary in feeding habits. SCF is exploring the effectiveness of a range of approaches to nutrition education for pregnant and lactating women, and feeding of infants and children up to three years old. Demonstrations on weaning foods are conducted, using locally available, low-cost ingredients (rice, vegetables, and fish and

egg if available). Introduction of solid food after the age of four months is encouraged, along with breast feeding. In some cases both weighing and arm measurement techniques, even when done effectively, have led to difficulty. Mothers of "at risk" children did not feel capable of making dietary improvements even though the PDWs had instructed them in this area. The integrated CBIRD approach is important in providing those women with food or the means to buy it. In many cases, families have been provided with free seeds to plant nutritious kitchen gardens.¹

5. Immunization

Bangladesh has an Expanded Program of Immunization (EPI) with aid from UNICEF, so SCF policy has been able to collaborate in every way possible with the government program. GOB norms prescribe that DPT should be given to six months to two year old babies; measles vaccine should be administered to nine months to two year old babies, and BCG should be given to all children up through school ages. However, after more than two years of waiting, it became apparent in 1984 that the outreach program of the government would take many months to reach the peripheral villages where SCF works. Therefore, SCF is planning to provide immunization campaigns of its own or in collaboration with other organizations. To date SCF has reached only one area, Mirzapur (see Appendix 12.)

¹ While no data is collected on such gardens, primarily because of the difficulty of defining them, their number is said to have increased significantly since SCF began promoting them in the mid-1970s. In concert with the many other nutrition-related activities of the CBIRD system, kitchen gardens are undoubtedly one of the factors contributing to the lower rates of infant and child mortality in SCF areas.

SCF anticipates seeking funds to buy equipment and provide the training, according to government norms, which would allow SCF to vaccinate all children in all impact areas. Such coverage would protect against tuberculosis, tetanus, diphtheria, pertussis, measles, and polio.

6. Oral Rehydration Therapy

No PDW records are tabulated specifically on the prevalence or incidence of diarrhea or on the use of ORT. A 1984 survey of infant deaths by cause (Appendix 13) shows half the deaths are neonatal but diarrhea is the major cause of post-neonatal infant deaths (8%). The same survey of deaths of children aged one to four (see Appendix 14) does show that diarrhea/dysentery is by far the major cause of death. Diarrhea led to 41% of total child deaths, more than three times the rate for any other single cause. Given the importance of oral rehydration in reducing that major cause of death, SCF has successfully emphasized ORT as a vital home remedy.

Nearly all the PDWs we interviewed described the ORT mixture and procedure accurately. An unusually high proportion of mothers (and even several fathers) we met at random (during our unguided walks through various villages) were also aware of the correct solution. Most households appear to have supplies (or access to village shops carrying) of both gur (local brown sugar) and salt. There is no data, however, on the extent of actual use of ORT in SCF areas, and there is some disagreement among SCF staff about the number of homes which have adequate supplies of gur and salt, and have the standard half-seer cup needed to mix ORS properly.

SCF staff are considering use of the rice water ORT formula being tested by ICDDR,B.

7. Family Planning

Family planning has been an important ingredient of SCF's CBIRD program in Bangladesh since the mid 1970s. The services include motivation, supply, and referral for surgery.

Intensive and continuous motivation work within each community is conducted by the PDWs (and in Rangunia by the multipurpose workers) during their regular home visits. They reinforce the message in subsequent contacts with the target clientele, the eligible couples and women of child bearing age. PDWs make door-to-door delivery of oral pills, condoms, and other contraceptives directly to the users. Supplies are replenished at regular intervals according to client needs. Since the PDWs are local residents of the neighborhood, women or their husbands sometimes collect the contraceptives from the PDW's house. All contraceptive supplies are received from the government from the nearest Upazilla Health and Family Planning Center. Occasionally there are problems with the supply chain. This occurred most recently in January-February of 1985 due to an inadequate supply of oral pills in the government storage. PDWs refer clients selecting sterilization (tubectomy

or vasectomy) or IUDs to government o. PVO clinics near the impact area where such services are regularly available.²

8. TBA Training

In much of rural Bangladesh the majority of deliveries are assisted by family members and/or dais, traditional birth attendants (TBAs). Thus in three of the four impact areas (not including Rangunia) SCF has located and trained a large number of TBAs. By reporting each birth in the para, the PDWs can identify the most active TBAs. Training, arranged by the HNFP Program Officer, is provided in small groups for several hours by trained nurse midwives from the nearest hospitals. These nurse midwives also provide minimal supervision and follow-up training through monthly

² In Mirzapur, for example, clients are taken to Kumudini Hospital, the Upazilla Health and F.P. Center, and the Family Welfare Centers in the nearby Union of Gorai. In Rangunia, a private Christian community hospital is used for referral services in addition to the government's clinics in the impact area. The clients are accompanied by the PDWs and the cost of transportation is covered by SCF. Clients accepting the injectable contraceptive Depo-Provera receive injections in their own village according to the schedule SCF arranges with nearby hospitals, mostly by other PVOs.

Follow-up services are also provided by the PDWs. In case of complications the PDWs contact the MA in the impact area where he is available. If necessary, they are taken to a nearby hospital. This back up and reassurance by PDWs increases the confidence of the acceptors. SCF's rural development activities in other sectors such as agriculture, water and sanitation, and education also have considerable positive effects on the acceptance of family planning services.

In all family planning work, the PDW has back-up support from the SCF field staff. Most supervision is provided by the CP and the SDC. The next higher level of supervision comes from the MA and the FC. Periodic supervision of services and refresher training is also done by the HNFP Program Officer.

visits to the TBAs' villages. The PDWs and Women's Saving Groups are reported to play a role in supervision by quickly identifying TBAs who do not perform as expected.

SCF also provides the TBAs with delivery kits including sterile razor blades and string because the TBAs cannot afford the more expensive kit (sold for \$1.00 by a GOB social marketing project which includes rubber gloves and other items they do not wish to buy or use). TBA training to date has been provided to two of about 12 TBAs in Mirzapur, 22 TBAs (less than half the total) in Nasirnagar, and 30 TBAs in Ghior.

In Mirzapur, SCF has also arranged for limited antenatal care. The trained TBAs assist the nurse midwife who, visiting from the nearest hospital, organizes monthly antenatal clinics in the four villages. The TBAs rotate to a different village each month. A similar system is anticipated for the three other impact areas, possibly combined with women's group meetings, and SCF has plans for providing Nurse Midwife Trainers in every PHC Center.

9. Water

Some of SCF families have an adequate, safe water supply system, but not all. SCF relies almost entirely on the GOB and UNICEF to provide handpumps for SCF villages, but frequently there are lengthy delays, or the number provided is insufficient. SCF then mobilizes funds for buying pumps and drilling wells. Sites for handpumps are identified jointly by field staff and village staff, and reviewed/approved by the VDC. As in most SCF-assisted projects, some self-help is required from the villagers.

In this case it takes the form of paying the cost of handpump installation. Volunteer care-takers, usually those who live nearest the pump, are appointed. They are responsible for minor repairs and maintenance of handpumps after installation.

10. Latrines

Sanitary latrines are an important part of the HNFP program. In Bangladesh, most families already have at least some sort of primitive pit latrine near the house. SCF workers take note of these families, as well as those without any facilities. They promote the use of individual water-seal latrines of a type recommended by the GOB and UNICEF, which is sanitary as well as relatively cheap. Government latrine production centers exist in or near all SCF areas. The government-subsidized cost of one latrine set is \$5.00, plus transportation costs. SCF promotes family, not community latrines. The demand for these government latrines has exceeded the supply, so SCF has set up its own village production units, producing sets cheaper than the government, and providing loans making it easier for poor families to purchase latrines.³

³ SCF is also testing a very low-cost system to upgrade the traditional pit latrine with tin sheets without the more expensive concrete slab. A demonstration project of making those low-cost latrines is under way in Ghior, where they are made by a locally trained man. For demonstration purposes, SCF has installed a latrine in each village staff home. The idea of locally made latrines is a new idea which SCF says is slowly catching on.

11. Cataract Extraction

Since 1983, SCF has provided cataract surgery in mobile eye camps held at one of its villages in Nasirnagar. SCF was assisted by seven organizations.⁴ A total of 553 patients were treated and 103 of them received operations. The eye camp succeeded because of the cooperation of so many PVOs and the youths who volunteered to give round-the-clock services to patients.

4 Participating Organizations:

- Bangladesh National Society for the Blind provided the Medical Team and Services;
- Royal Common Wealth Society for the Blind - coordinated the team support with BNSB;
- Salvation Army provided survival biscuits;
- Mennonite Central Committee - provided quilts;
- Gono Unnayan Prochesta and SCF provided experienced volunteers;
- Kunda Junior and Primary School authority provided accommodation;
- Villagers of Nasirnagar impact area provided cash, kind, volunteers and logistic support.

APPENDIX 12

IMMUNIZATION IN SCF AREAS

In Mirzapur, through collaboration with CARE (which had an established cold chain) and the Koumadini Hospital, an ongoing program has so far immunized about 70% of mothers and children according to government targets. Immunization cards are being prepared to be kept by mothers, many of whom appreciate them as a kind of health status symbol; the cards will be distributed when the dosage schedule is completed. A new government "Road to Health" card for weight-for-age growth monitoring has been approved and will eventually include the immunization records now on the SCF cards.

In Mirzapur, the PDWs and CPs who supervise them have motivated a majority of mothers to come to gathering places ("immunization camps") and wait for the SCF/CARE/Koumadini team to arrive. They are following up children under five not yet immunized, particularly those who were previously absent or ineligible for the first shots because of illness. In Rangunia, immunizations are provided through a private organization, the Christian Health Care Project. PDWs motivate mothers to take advantage of this service, and help to organize the program with the VDC. All under-five children are targeted for BCG and DPT vaccinations, and all pregnant women for TT. This service is provided free to the villagers.

The HNFP staff in the BFO and in the other two impact areas, Nasirnagar and Ghior, are very concerned about extending immunization to those areas, where death rates from neonatal tetanus, measles, and whooping cough are high. But HNFP staff have met

APPENDIX 12 (Cont.)

with District Medical Officers in Nasirnagar and Ghior and have been told that vaccine supplies are inadequate for clinics served by District hospitals--even though some vaccine is available and the cold chain is in place. It may be several years before EPI teams reach such outlying areas, thus the MOH has asked SCF, CARE, and other PVOs to help in providing rural coverage. In response, SCF is now gearing up for an immunization program in the Nasirnagar area and the first step of training the Nasirnagar medical team was completed in early 1985. They were trained in EPI from the central government EPI program in Dhaka, and observed the SCF-CARE immunization campaign in Mirzapur. Plans are now being organized to establish a cold chain in Nasirnagar.

In Ghior the government EPI has been somewhat more effective in providing coverage. Moreover there are several health facilities not too distant from SCF's villages. Thus SCF has decided to put its immediate emphasis on the three other areas.

APPENDIX 12 (Cont.)

Immunization in SCF Areas

Tetanus toxoid Coverage for Mothers (Mirzapur)*

Village:	Target group: 12-49 yr. old women	1st dose	2nd dose	Percentage Covered
1) Dehrua	132	116	106	
2) Baimil	418	341	310	
3) Ranashal	237	212	199	
4) Rashid Deota	469	397	357	
TOTAL	1,256	1,066	972	77%

* Data available on two dose regimen of tetanus toxoid for mothers and on two doses of DPT (third dose has been given but no data available at time of this writing). Data shown elsewhere states that of 1119 women, 90% completed the second dose.

D P T Coverage for 6 month - two-year olds:
(data available 2/14/85)

1)	41	34	34	
2)	150	113	93	
3)	41	37	37	
4)	135	98	98	
	367		262	71%

Measles Coverage for Nine-month to Two-Year Old Children (Mirzapur) *

<u>Village</u>	<u>Target</u>	<u>Total immunized</u>
1)	35	25
2)	92	55
3)	40	33
4)	103	67
TOTAL	270	180

* Children not yet immunized are identified and are being followed up.

Source: Dr. Gretchen Berggren and Dr. Afzal, SCF, Dhaka, Feb. 1985

APPENDIX 13

Registered Infant Deaths by Cause
Nasirnagar Impact Area
July 1983-June 1984

<u>Presumed Cause or Leading Symptom</u>	<u>Total</u>	<u>Percentage of Infant Death</u>
Neonatal Tetanus	20	28%
Early Neonatal Death (0-43 Hrs.)	15	21
Diarrhea, Dysentery	6	8
Fever	4	6
Measles	3	4
Pneumonia	3	4
Oral Ulcers	3	4
Skin Disease, Septicemia	3	4
Malnutrition	2	3
Drowning	2	3
Prematurity	2	3
Cot Death	1	1
Unknown	<u>7</u>	<u>10</u>
TOTAL	71	100%

	<u>1982 - 1983</u>	<u>1983 - 1984</u>
Total Population (Census 3/82)	-	18,340
Registered Births	570	574
Registered Infant Deaths	112	71
I.M.R.	198/1000	124/1000
Crude Birth Rate	31/1000	31/1000

APPENDIX 14

Registered Child Deaths (1-4 Yr. Old) By Cause
Nasirnagar Impact Area
July 1983-June 1984

<u>Presumed Cause</u>	<u>Total 7/83-6/84</u>	<u>Percentage of Child Death</u>
Diarrhea, Dysentery	19	41%
Febrile Illness	6	13
Malnutrition	5	11
Measles	4	9
Convulsions	3	6
Drowning	3	6
Pneumonia	1	2
Tetanus	1	2
Abscess	1	2
Oral Ulcers	1	2
Skin Infection, Septicemia	1	2
Sudden Death	<u>1</u>	<u>2</u>
TOTAL	46	100%

	<u>1982 - 1983</u>	<u>1983 - 1984</u>
Total Population (Census 3/82)	-	18,340
Registered Births	570	574
Estimated Child Population (1 Yr. to 4 Yr. 11 Month of Age)	2,934	2,934
Registered Child Deaths	67	46
Child (1-4 Yr. Old) Mortality Rate	23/1000	16/1000

APPENDIX 15

Budget and Expenditure of SCF in
Bangladesh (1983-84)*
(US \$1 = Taka 26)

Budgeted Funds:

<u>Source</u>	<u>Amount</u>
Save The Children Fund:	\$ 266,946
Matching Grant:	23,000
PACT:	<u>35,000</u>
TOTAL	\$ 325,146

Actual Field Office Expenditure:

<u>Major Heads of Expenditure</u>	<u>Amount</u>
1. Bangladesh Field Office Expenses (includes expenses of the Dhaka office and travel for regional activities):	
a. Personnel	\$ 42,075
b. Travel	10,956
c. Capital Asset	4,755
d. Others	<u>46,244</u>
Sub Total	\$ 104,030
2. Direct Expenditure**	101,713
3. Materials Development & Documentation for the Womens Prog. under PACT	17,445
4. Misc. Expenses from Matching Grant	<u>14,966</u>
TOTAL	\$ 238,154

* Figures supplied by SCF, Dhaka, to evaluators, March 1985.

** This refers to expenses undertaken at the field level in all impact areas.

APPENDIX 16

Cost of Health, Nutrition, and Family Planning
Components of SCF Bangladesh, FY 1983-84
(US \$1 = Taka 26)

HNFP Direct Project Expenses¹

<u>Project Area</u>	<u>Amount</u>
Rangunia	\$1,550
Nasirnagar	2,934
Ghior	910
Mirzapur	<u>1,711</u>
TOTAL	\$7,105

Personnel Cost for H & F.P.²

<u>Type of Personnel</u>	<u>% of there time used for H & FP</u>	<u>Number X Annual Salary³</u>	<u>Amount</u>
Medical Assistants	100%	3 x 1000	\$ 1,000
Paramedics	"	1 x 300	300
Local Doctors	"	4 x 250	1,000
Village Staff	"	8 x 175	1,408
Para Development Workers	50%	35 x 203 x (50%)	3,552
Counterpart Workers	50%	13 x 225 x (50%)	1,462
Program Officer	75%	1 x 2500 x (75%)	<u>1,875</u>
TOTAL			\$10,597

Total SCF Expenses for Health and Family Planning: \$17,702

Per Capita Annual Health & Family Planning Expense
In SCF Project Areas:⁴ 40¢

¹ Only recurrent costs other than personnel (e.g. medicines, equipment, maintenance) have been included. Figures from BFO, Dhaka, March 1985.

² Estimates of HNFP time from HNFP Program Officer.

³ Number refers to the number of persons in that personnel category.

⁴ This is a rough estimate and does not take into account some of variables external to SCF program which may be affecting the cost.

APPENDIX 17

ENVIRONMENTAL AND PROGRAMMING FACTORS
POSSIBLY AFFECTING SCF RESULTS

	RESULTS	ENVIRONMENT	PROGRAMMING
RANGUNIA	<ul style="list-style-type: none"> - IMR cut in half - CMR unchanged - FP acceptance 32% (increased only 23% in 7 yrs.) 	<ul style="list-style-type: none"> - 10,000 population - high proportion (30%) of Buddhist and Hindus influences education and FP 	<ul style="list-style-type: none"> - oldest HNFP program (1974) - single purpose workers not more successful in FP - 1 worker per 1,212 population - FP training provided by govt. and PVOs in Dhaka
MIRZAPUR	<ul style="list-style-type: none"> - lowest, most stable IMR and CMR - highest FP acceptance 43% (increased by nearly 60% in 3 years.) 	<ul style="list-style-type: none"> - smallest area: 5,500 - over 90% Muslim, area resisted FP initially but now accepts most - access to nearby hospitals and FP centers 	<ul style="list-style-type: none"> - FP since '79, other activities later - latrines increased 10 times, tube-wells doubled in 2 years - multipurpose workers more effective in FP - 1 worker per 774 population - collaboration with CARE on EPI - only 2 TBAs trained
GHIOR	<ul style="list-style-type: none"> - 30% increase in IMR - sharp increase in CMR - FP acceptance 38% 	<ul style="list-style-type: none"> - good access to govt/PVO hospitals, clinics - relatively high socio- economic level 	<ul style="list-style-type: none"> - PDWs since 1982, little staff training except in nutrition, FP - improved monitoring may explain increases in mortality - no SCF clinic; one government clinic - low priority for SCF originally because area seemed well off - most TBAs trained (30)
NASIRNAGAR	<ul style="list-style-type: none"> - 44% drop in IMR from the highest rate - CMR dropped 30% but remains highest - lowest FP acceptance by far (10-13%) 	<ul style="list-style-type: none"> - largest population: 19,000 - very isolated, remote - conservative Muslim area - low literacy, educ. level 	<ul style="list-style-type: none"> - PDWs only began in 1982 - HNFP training incomplete (except FP, since '79) - no sanitation activity - EPI may be provided in '85 - strong resistance to FP - 22 TBAs trained

APPENDIX 18

Vital Events & Contraceptive Prevalence In SCF Impact Areas (1983-1984)

IMPACT AREA	POPULATION	BIRTHS	CBR	D E A T H S			CDR	E.G.	F.P. ACCEPTORS		RNI
				0-1	0-5	TOTAL			#	%	
RANGUNIA	10049	254	25.3			73	7.3	1495	480	32.1	1.8
MIRZAPUR	5390	148	27.5			40	7.4	952	411	43.2	2.0
GHIOR	9649	260	26.9			115	11.9	1652	643	38.9	1.5
NASIRNAGAR	18910	574	30.3			220	11.6	2908	406	14.0	1.9
ALL IMPACT AREAS 1983-84	43998	1236	28.1			448	10.2	7007	1940	27.7	1.8

Change In Contraceptive Prevalence In Impact Areas

IMPACT AREA	PREVALENCE RATE IN BASELINE YEAR	CURRENT PREVALENCE RATE, (1984)	ANNUAL % DIFFERENCE
RANGUNIA	29.27	32.1	+1.5
MIRZAPUR	21.9 (1979)	43.2	+5.3
GHIOR	26.3 (1982)	38.9	+6.3
NASIRNAGAR	3.8 (1982)	14.0	+5.1

APPENDIX 19

Comparison Of Vital Rates Of SCF Impact Areas
And Other Small Area Projects

<u>Projects</u>	<u>Data Collection Year</u>	<u>CBR (per 1,000)</u>	<u>CDR (per 1,000)</u>	<u>NRI (per 100)</u>
SCF Impact Areas (all)	1984	28.1	10.2	1.8
SCF Impact Areas (excluding Nasirnagar)	1984	26.4	9.1	1.7
CWFP Project Areas	1983	30.6	8.8	2.2
UNICEF Project Villages	1982	35.7	9.6	2.6
Family Planning Through Swanirvar Villages	1982	33.7	14.5	1.9
FPIA Projects through RSS program	1981	27.0	9.0	1.8

APPENDIX 20

Age-Specific Fertility Rates (July 1983-June '84)
(Four Impact Villages In Mirzapur)

AGE GROUPS	BIRTHS	NUMBER OF WOMEN	ASFR
15-19	29	100	290.0
20-24	49	218	224.8
25-29	41	224	183.0
30-34	11	134	82.1
35-39	7	105	66.7
40-44	2	48	41.7
45-49	1	40	25.0
ALL AGES	140	869	161.1

Age Specific Fertility Rates In Matlab (1981),
SCF Mirzapur Impact Area (1983)

Age (years)	MATLAB MCH-FP AREA			SCF MIRZAPUR AREA		
	Number of Live Births	Number of Women	ASFR	Number of Live Births	Number of Women	ASFR
15-19	623	5943	104.8	30	124	241.9
20-24	1104	4258	259.3	43	202	212.9
25-29	719	2863	251.1	38	206	184.5
30-34	404	2175	185.7	18	115	156.5
35-39	331	2762	119.8	12	99	121.2
40-44		34.7	34.7	3	70	42.9
45-49	14	1969	7.1	1	28	35.7
ALL AGES	3266	22014	148.4	145	844	171.8

MATLAB (1981)

GFR = 148
TFR = 4.81
CBR = 35

MIRZAPUR (1983)

GFR = 172
TFR = 4.98
CBR = 28.6

APPENDIX 21

GENERAL RECOMMENDATIONS BY PYLE (1982)
AND SCF ACCOMPLISHMENTS (1985)

<u>Recommended</u>	<u>Accomplished to Date</u>
- Orientation of field staff and VDCs on CBIRD	- Generally provided
- Process evaluation system including criteria for measuring community sustainability	- Seen to be complex, not yet introduced (but planned for future)
- Categorize the poorest villagers	- Detailed criteria are followed for classification of all families
- Assist the poorest villagers	- Special efforts are made to assist poor families with lower fees, special services, loans, etc.
- Review loans and monitor repayments	- Done carefully and on schedule by VDCs and FCs
- Monitor self-help contributions	- Usually done by VDCs
- Emphasize school assistance	- Done adequately
- Improve collaboration with the government	- Satisfactory in most areas, particularly in family planning and agricultural sectors
- Non-BFO specialists should do special in-depth studies to document the effects of CBIRD in certain activities	- SCF has encouraged MSH to do the present in-depth study of HNFP and would be willing to do other in-depth studies if useful to the BFO.

APPENDIX 22

HNFP RECOMMENDATIONS BY PYLE (1982) AND SCF ACCOMPLISHMENTS (1985)

<u>HNFP Recommendation</u>	<u>Accomplishments to Date</u>
- Target families of malnourished children for income generation activities	- Done by most VDCs but effectiveness not measured by BFO
- Ensure that these families also have "improved" nutrition gardens	- Sometimes done by PDWs but not monitored by BFO
- Ensure that they also receive nutrition education from from Savings Group	- Done by some Savings Groups with assistance of PDW
- Ensure that Savings Groups provide money for food for malnourished child	- Probably done only rarely if at all
- Provide VDC with names of "at risk" children monthly	- Not done often
- Ensure multi-purpose workers in Ranqunia instead of separate nutrition/family planning workers	- In process
- Weigh "at risk" children in impact areas	- Not done in three of the four areas
- Increase use of percentages in impact monitoring	- Done
- Post important impact indicators in VDC offices	- Done in some areas
- Increase use of impact data in semiannual reports, and compare to previous years	- Some impact data is being reported to AID but can be improved
- Introduce arm band measurement record card	- Not done; growth cards being prepared for future use
- Keep all records in one book instead of many registers	- Not done

APPENDIX 23

HNFP RECOMMENDATIONS BY BERGGRENS (1984)
AND SCF ACCOMPLISHMENTS

<u>HNFP Recommendations (1984)</u>	<u>Accomplishments to Date</u>
- Produce soap and/or mix scabies medicines locally	- Not begun or planned
- Distribute Vitamin A capsules every six months to children aged six months to five years	- Not done, but capsules available in clinics and PDWs can detect night blindness
- Teach ORT to all mothers by watching them demonstrate home mixing	- Done frequently
- Clinics should demonstrate all ORT utensils and ingredients	- Usually able to do so
- Pharmacies should sell sugar (<u>gur</u>) at cost	- Not done. Families are encouraged to buy it in shops
- Weigh children quarterly and use road to health card	- Not done yet
- Teach mothers to help in weighing children	- Not done widely
- Organize cold chain system, obtaining vaccines in Dhaka and delivering them to clinics in and around SCF areas	- SCF has collaborated with CARE in one area, has not set up cold chain for other areas (but this is planned for implementation in 1985-86)
- Treat worms adequately	- Done in clinics
- Collect blood smears from all fever cases for detecting and monitoring malaria	- Not done
- Quality control of birth and death records to prevent under-reporting	- Not done

APPENDIX 24

SCF Projects, By Sector And Impact Area, During FY 82

PROGRAM WIDE SUMMARY SHEET

IMPACT AREA	PUBLIC WORKS	AGRICULTURE	EDUCATION	HNFP	SOCIAL WELFARE	INDUSTRY COMMERCE	HOUSING	TOTAL
RANGUNIA POP: 9696	1	13	4	4	5	2	-	29
NASIRNAGAR POP: 18340	2	14	9	7	8	8	-	48
GHIOR POP: 9391	-	8	8	6	5	3	1	31
MIRZAPUR POP: 5240	1	14	7	2	4	6	-	34
TOTALS:	<u>4</u>	<u>49</u>	<u>28</u>	<u>19</u>	<u>22</u>	<u>19</u>	<u>1</u>	<u>142</u>
% OF TOTAL (142)	3%	35%	20%	13%	15%	13%	1%	100%

APPENDIX 25

CRITERIA FOR PHASE-OVER

- at least one primary school;
- adequate health services;
- adequate water supply;
- major roads (inside and outside the village);
- clear evidence of increased agricultural production in comparison with non-project villages;
- evidence that all social and economic groups have benefitted from SCF programs;
- income-generating projects for the VDC so that the VDC may continue the development activities;
- income-generated projects for women;
- sufficient funds in the Village Development Fund of the VDC;
- sufficient sanitary latrines in the village;
- demonstrated the capacity of the VDC and the villagers to plan and implement projects;
- demonstrated its capacity to utilize outside resources;
- villagers who have received skill training;
- managerial capacity.

APPENDIX 26

PHASE-OVER ISSUES

<u>Issue</u>	<u>Possible Solution</u>
- CBIRD staff very costly for VDC to maintain.	- Income generation projects such as fish cultivation, grain storage, loan of irrigation pumps needed to generate enough funds for VDC to pay staff.
- Most income generation projects have been for personal profit; projects for community benefit are more difficult to organize.	- VDF loans must be for proven, viable projects and must be very public - so that VDC oversight and community pressure will guarantee timely repayments
- VDC has no legal status, no recognition from government.	- SCF can provide assistance to register VDC with government. Benefits: gives VDC more identity; VDC eligible for funds from government, other donors; some supervision, including annual audit, by government.
- VDC cannot cope with all responsibilities of coordinating development activities.	- VDC appoints and supervises Development Coordinator in charge of income generation projects, loan collection, liaison with government, etc., salary about \$600.

APPENDIX 26 (Cont.)

<u>Issue</u>	<u>Possible Solution</u>
- SCF needs to provide some support during and after phase-over.	- During first two years, SCF will audit books quarterly, provide technical assistance as needed, provide fewer and fewer funds. No funding after phase-over.
- A responsible, representative group is needed to control phase-over.	- An Advisory Committee on phase-over of local, SCF, and government officials should meet at least annually to plan, review problems and progress.
- Should VDC be restructured?	- No.
- How should the VDF be managed in future?	- Four accounts: VDC administration (includes Coordinator's salary); Agriculture Committee (farming loans); Landless Committee and Womens' Committee (loans to "C" and "D" families)
- Phase-over timetable?	- Not decided.

APPENDIX 27

HNFP Constraints and Steps Being Taken

CONSTRAINT	STEPS NOW BEING TAKEN TO OVERCOME THE CONSTRAINT
<ul style="list-style-type: none"> ° Lack of immunization services through govt. channels 	<ul style="list-style-type: none"> ° working with another PVO (CARE) to provide immunization coverage (80%) in Myrzapur impact area ° development of plan and budget to put cold chain in place and procure equipment to provide vaccination coverage in other areas
<ul style="list-style-type: none"> ° Lack of enough baby-weighing scales to provide adequate growth monitoring; lack of adequate training for appropriate workers to carry out growth monitoring activities lack of govt. "norms" (esp. standardized weight/age growth monitoring instrument) 	<ul style="list-style-type: none"> ° temporary substitution of screening for malnutrition by mid-upper arm circumference meas.; ° use of scarce scales to follow children "at risk" through serial weighing; development of plan and budget for acquiring scales new govt. approved weight/age cards; ° development of plan for new training and recycling needed
<ul style="list-style-type: none"> ° Lack of prenatal care and TBAs in field areas 	<ul style="list-style-type: none"> ° identification of birth attendants (both Dais' and active grandmothers) for training of TBAs in Mirzapur through collaboration with nearby private institutions with planned follow-up; ° plan and budget for adding trained nurse mid-wives to provide antenatal services to mothers, train TBA's follow-up on family planning, and aid with nutrition program (see above)
<ul style="list-style-type: none"> ° Lack of education of fathers and male members of the community in family planning, nutrition, sanitation, and in supportive roles 	<ul style="list-style-type: none"> ° addition of male Health-aide-guides who will act as outreach workers for reaching the male members of communities and will complete family registration and monitoring activities, thus sharing PDW's tasks and thereby reducing their overload
<ul style="list-style-type: none"> ° Danger of overload for women PDWs who are already working to capacity 	

APPENDIX 27 (Cont.)

- Lack of nutrition demonstration education materials and training for appropriate levels of worker;
 - planning and budgeting for these is underway;
-
- Lack of capability to supply nutrition supplements rapidly to destitute mothers
 - being discussed at village and BFO level

THE JOHNS HOPKINS UNIVERSITY

SCHOOL OF HYGIENE AND PUBLIC HEALTH

DEPARTMENT OF INTERNATIONAL HEALTH

615 North Wolfe Street • Baltimore, Maryland 21205

September 18, 1985

Cable Address PUBHYG
Phone (301) 955-1914

Dr. Gretchen Berggren
Save the Children
54 Wilton Road
Westport, Connecticut 06680

Dear Gretchen:

I am enclosing a copy of my C.V., as agreed in our telephone conversation. I am also forwarding some simple formulas and tabulations that I developed to show that modest reductions in IMR can be statistically significant even in rather small populations, especially those followed over multiple years. For example, a reduction in IMR as small as 10 percent among 4,000 births could hardly be due to chance. Narangwal and other studies show that such reductions and more are entirely realistic. Three formulas are developed for general reference beyond this specific illustration. The formulas are based upon Poisson probability assumptions, which provide reasonable approximations and simplify calculations markedly. Thus, the formulas can be used for various "rule-of-thumb" considerations. Finally, I have prepared a table that shows results obtained from the formulas over a range of conditions.

Good luck in your evaluative endeavors. I will await further word from you as to how I can be helpful.

Sincerely,



William A. Reinke, Ph.D.
Professor and Director
Division of Health Systems

WAR: cab

Enclosures

P = Population Size
B = Crude Birth Rate
D = Infant Mortality Rate
Y = Years of Experience (Data)
E = Expected (Baseline) Infant Deaths
S = Observed % Reduction in D Needed for Significance

$$E = PBDY \quad (1)$$

$$S = \frac{2\sqrt{E}}{E} \times 100 = \frac{200}{\sqrt{E}} \quad (2)$$

In case of an infant mortality rate of 100 and crude birth rate of 40 (a satisfactory approximation over a wide range of circumstances):

$$E = .004PY \quad (3)$$

Example: Assume a population of 50,000 followed for 2 years

$$E = (.004)(50,000)(2)$$

$$= 400$$

$$S = \frac{200}{20} = 10$$

That is, the stated conditions lead to 2,000 births per year, 4,000 in two years and 400 infant deaths expected. If only 360 deaths occurred in 4,000 births (an infant mortality rate of 90) the reduction would be considered significant.

General Table:

Percent Reduction in IMR Needed for Significance

<u>Population</u>	<u>One Year</u>	<u>Three Years</u>
10,000	32	18
20,000	22	13
30,000	18	11
40,000	16	9
50,000	14	8

APPENDIX 29

Notes by Dr. Gretchen Berggren - Nutrition in the Bangladesh SCF Program

Children "at risk" are mentioned throughout the evaluation document without defining what "at risk" means. To the "para" worker in the impact areas in Bangladesh, "at risk" means that the arm circumference of a child in the 1-4 year old age groups measures less than 12.5 cms as indicated by an arm circumference band. Such a child is known as being "in the red" by the workers because the warning color, red, shows up on the arm circumference band carried by the para worker when she does her home visits.

We owe it to the "para" workers to describe what this "at risk" signal has come to mean. In these cases, the para worker makes special home visits, applies all she knows about nutrition teaching, and (in cases documented during the time the evaluation team was there), she teaches the mother how to overcome the anorexia that has often been precipitated by an infectious disease.

The history of nutrition assessment in SCF Bangladesh reveals that several years ago the project attempted to teach mothers to weigh their children in "seers" (not kilos) because that was the weight-measure best understood by the average mother. Growth monitoring instruments and scales were converted from kilos to "seers." This had to be abandoned, however, wherein the Ministry of Health of Bangladesh began to teach its workers to use international road-to-health weight/age card and scales based on a kilogram measurement. In the confusion that followed, the Bangladesh health workers in SCF impact areas decided to teach the barely literate "para" (neighborhood) workers to carry and use regularly the arm circumference measuring tape which designates through a color code when a child is at high risk.

Recent requests from the SCF Mothers Groups indicate that mothers are now ready to take up weighing children once again. They indicated to us as medical professionals that they have seen the "kilogram" card, and are ready to try it.

During the consultation of Dr. Gretchen Berggren, mothers demonstrated their capability along with their para workers.

The mothers in SCF impact areas now seem ready, if properly equipped, to begin to carry out regular monitoring.

As seen in the appendix of this document, Dr. Berggren looked at data on weight-for-age taken in Mirzapur and for documentation of earlier weight/age studies. Previous studies on a community wide basis, however, seemed to have been arm circumference studies. It was, therefore, difficult to prove that nutrition had improved because more recent documents have weight/age. However, there are fewer children "at risk" now (3rd degree malnutrition) in recent weighings than were shown to be "at risk" by the arm circumference measurements one year ago.

APPENDIX 29 (cont.)

Dr. Berggren undertook to do a "matched pair" study of children whose last weight-for-age showed them to be in faltering growth patterns. She compared them with children from the same economic group, whose mothers had similar situations but who had managed to prevent serious malnutrition. Mothers were matched in socio-economic groups based on the categories described earlier in the evaluation document, and on parity. Ten pairs were selected in Mirzapur. Each family was visited by Dr. Berggren and an interpreter. The findings showed that mothers preventing malnutrition seemed to have profited from the messages taught by the para-development workers: to have better feeding practices, and to have more family support. The findings are summarized on the following pages.

APPENDIX 29 (Cont.)

Preliminary Findings - SCF Bangladesh Evaluation

Measuring Impact through Documentation of
Behaviorial Change or Differences:
Study of Ten "Matched Pairs" of
Homes Where Children are Well-Nourished (wt/age)
vs Homes Where Children Suffer Malnutrition

Mirzapur, Bangladesh, February 1985
G. Berggren, Lily

<u>Salient Features and Practices in Homes of Well-Nourished</u>	<u>Salient Features and Practices in Homes of Poorly Nourished</u>
1. Prolonged Breast Feeding - tendency to allow child to suckle through age 3 and beyond.	1. Early weaning from breast milk by age 1 1/2; concomitant bottle feeding in some cases (N.B. bottles containing extremely dilute milk were observed - 4 cases).
2. Early use and continued use of cow's milk, even though diluted.	2. Absence of cow's milk as supplement.
3. More frequent feedings or meals; giving children nutritious between meal snacks and either breast milk or " <u>chapati</u> ," cooking fires lit at least three times a day; children awakened for evening meal.	3. Less frequent meals; tendency to allow child to sleep through the evening meal; early breakfast absent. Cooking fires lit only twice a day.
4. Earlier supplementation of breast feeding by food from family pot (by 6-9 months of age).	4. "Breast milk only" to age one; late supplementation from family pot.
5. Presence of strong, supportive mother-in-law or grandmother who plays role in feeding child.	5. Tendency of mother to be the only one feeding the child, or to have little support from extended family.
6. Less frequent recent infection.	6. More frequent recent infection, especially measles.
7. Tendency to consult early for curative care.	7. Tendency to consult late, or to have ignored need to consult.

APPENDIX 29 (Cont.)

Salient Features and Practices in Homes of Well-Nourished

Salient Features and Practices in Homes of Poorly Nourished

- | | |
|--|--|
| <p>8. Meals more apt to contain beans as a source of protein and leafy green vegetables. (Note: fish was rarely eaten but was found in a few cases; no meat was recalled).</p> | <p>8. Meals more apt to be "vegetables only" during this season; little variation in content, less apt to give child leafy greens or beans.</p> |
| <p>9. Tendency to encourage child to eat in face of illness; diet not limited in illness.</p> | <p>9. Tendency to revert to "breast milk only" in illness, or to allow child to revert to one food.</p> |
| <p>10. Well nourished child was apparently strong from birth, not "too small" (? normal birthweight).</p> | <p>10. Malnourished child had been "small from birth," was always "tiny" (? low weight for gestation age).</p> |
| <p>11. Mothers could describe counsel given by PDW re: foods, cleanliness, oral rehydration therapy.*</p> | <p>11. Mothers could not easily describe counsel of PDW re: foods, cleanliness, oral rehydration therapy.*</p> |
| <p>12. Children who were "at risk" had been pulled out of high risk status during serial weighing/counselling through women's program.</p> | <p>12. Children who were "at risk" had improved during serial weighing and efforts of PDW's but were still small for age (see #10, above) or had multiple infections poorly treated.</p> |
| <p>13. Mothers were apt to have had tubal ligation or to be contraceptive.</p> | <p>13. Mothers were less apt to be contraceptive users; none had ligations.</p> |
| <p>14. Para workers tended to be older, more experienced women.</p> | <p>14. Para workers tended to be less experienced.</p> |

*In all homes visited, someone in the family could describe how to mix oral rehydration fluid; in a few cases mothers are still confused.

APPENDIX 30

Notes by Dr. Gretchen Berggren - Sustainability

It is true that villagers will probably not be able to take over many of the health costs soon. When they do, they will have to make choices. SCF assumes that community councils may someday have to make choices. Would they rather keep their agricultural worker or their women's group leaders? Their medical assistant and dispensary or their day-care center? The assumption that SCF makes is not that the community will necessarily take over all services that they themselves have requested and participated in implementing. It is rather that family voices will eventually be heard in a democratic way on the subject of what to keep and pay for. It is also an assumption that the government, which cannot now provide dispensary services in some of areas, will begin to increase its coverage and would be able to take over certain dispensaries and services. It is in this light that SCF has hired government trained and recognized workers.

The thrust of SCF child survival funds, now assured to our SCF Bangladesh field office, will be to make sure that "ten behaviors" for child survival have been adopted by most families. These family behaviors will remain whether or not SCF does.

Families will be trained to

- o assure immunization services to mothers and children;
- o provide appropriate food and care to pregnant mothers;
- o prevent unwanted pregnancies;
- o assure a provision of an adequate supply of clean water;
- o provide adequate sanitary facilities for disposal of body wastes;
- o assure family members that they can get adequate care for more serious illnesses;
- o assure mothers the possibility of getting adequate nutrition and prenatal care;
- o provide appropriate nursing, weaning, and feeding of children;
- o participate in community level growth monitoring programs;
- o understand and practice oral rehydration.

FOOTNOTES

1 Public health and education services are unavailable or inadequate to the masses outside the cities and major towns, not only because of bureaucratic inefficiency and corruption but also because the government lacks the political will to tax elites in order to collect revenue for adequate public services. Nonetheless, the current Five Year Plan (1980-1985) emphasizes comprehensive development of the rural economy and rural services, particularly agriculture but including education, health, family planning, and water supplies.

2 One important feature of rural life in Bangladesh is the complex hierarchy of social and administrative units which influence family and household behaviors, land use, economic relationships, social service delivery, and so on. Simplified, we estimate this structure is as follows:

<u>Unit</u>	<u>Description</u>
District	GOB Administrative Area (about 50)
Upazilla (formerly Thana)	About 3-10 Unions (about 425 Upazillas in Bangladesh)
Union	3 Wards
Ward	Several Villages
Village	4-5 Paras (45,000 Villages in Bangladesh)
Para	Cluster of 4-10 baris
Bari	4-5 closely related households

3 Comparative Health Indicators*

	<u>Bangladesh</u>	<u>Asia</u>
Infant Mortality Rate	136	91
Child Death Rate	19	13
Population Malnourished	38%	26%
Life Expectancy at Birth	47 years	60 years
Per Capita Calorie Supply (% of requirement)	84%	100%

* UN estimates from 1983 World Population Data Sheet, Population Reference Bureau, Inc., Washington, D.C., 1983.

4 Dr. Afzal, the SCF/Bangladesh HNFP Program Director, lists the major causes of health problems as follows:*

1. Lack of knowledge and health awareness;
2. Poor sanitation and personal hygiene;
3. Inadequate safe water supply;
4. Limited or no access to the modern medical units services (Maternal and Child Health, Preventive and Curative), with dependency on the Quacks and faith healers, TBAs etc.);

5. High incidence of infectious/communicable diseases and the resultant mortality;
6. Low nutritional status (especially of children and mothers);
7. High birth rates (too many children, too closely spaced);
8. Low food productivity (old technology, lack of input, maldistribution);
9. Poverty;
10. Poor maternal and child care outreach system; dependency on untrained TBAs; injurious beliefs and practices;
11. Maldistribution of resources.

* Dr. Afzal, "SCF/Bangladesh Health Program," Dhaka, Jan. 1985

5 Figure supplied by FVA, Dec. 1984

6 Reported in SCF Second Annual Matching Grant Report, Jan. 1985

7 SCF Matching Grant Proposal, Westport, 1982. This grant covers the period from March 1983 to February 1986.

8 This section is adapted from SCF, "Three Year Matching Grant (1983-1986), Second Annual Report to AID, Westport, 1985; SCF, "Four Country Evaluation of CBIRD," Westport, 1982; SCF, "Save the Children's Program in Bangladesh," Dhaka, 1983, and other documents provided to the evaluators in Dhaka, Feb. 1985.

9 USAID, Directory of AID-Assisted PVOs in Bangladesh, Dhaka, 1982. Emphasis added.

10 SCF Bangladesh. "Three Year Strategy, 1985-1988," Dhaka, 1984
Current SCF goals in Bangladesh are to:

- help the target population create an effective grassroots infrastructure and decision-making process for development activities which meet their development needs;
- develop incentives for cost-effective, appropriately scaled programs in agriculture, health, education, etc;
- encourage development of local financial networks and the rural poor back into the economy of the target population;
- integrate component services, avoiding specialized emphasis;
- link target communities with regional and national development agencies; and
- experiment with the CBIRD model and introduce it to the government or replication.

11 The SCF Field Coordinator (FC) is the most educated and experienced staff member in the impact area. He comes from outside the area, usually has a university or post-graduate degree, and is experienced in community development.

His major responsibilities are to:

- organize and assist the VDC and other community groups and leaders;
- manage program funds;
- maintain records and reports;
- supervise SCF village workers;
- coordinate SCF activities with local nongovernment and government organizations and with the SCF Field Office in Dhaka; and
- manages and assists different health activities.

12 From September 1984 to the present, Dr. Alam, a Bangladeshi with experience in managing PVOs, has been acting Field Director. A new American Director will be arriving in the spring of 1985 when Mr. Alam will return to his position as Deputy Director.

13 SCF clinics are operating in all villages in Rangunia, and a centrally located PHC Center covers all four villages in Mirzapur. In Ghior, a Government Health Sub-Center provides limited services to two of four program villages. In Nasirnagar, only two centers exist at present in an area with five widely dispersed villages and a total population of over 18,000. SCF started one center for Kunda/Muslendapur villages and one for Gokarna/Choirkuri villages in Nasirnagar, in FY 1983. In SCF centers, the community cooperates with SCF to build the buildings, contributing land, labor and materials. Basic equipment is provided by SCF. The centers are staffed by a qualified MA or local doctor paid by SCF. He spends 4 days a week in the clinic (where he lives) and the other two work days in surrounding villages at schools, meetings, etc.

14 SCF, "Save the Children Reports...Annual Summary," Westport, 1984.

15 SCF, figures supplied by BFO, Dhaka, March 1985. See Appendices 14 and 15.

16 Ibid.

17 As a generally accepted rule of thumb, a typical developing country (with a crude birth rate of 40 and IMR of about 100) needs a sample population of at least 50,000 to determine a statistically significant change in IMR with a 95% confidence level. See, for example, Beverley Carlson, World Health Statistics Quarterly, No. 1, WHO, Geneva, 1985.

18 Increases in acceptance levels have been documented in all areas. In Ghior the CPR increased from 26.3% in 1982 to 39% in 1984 (an annual rate of increase of 6.3%). In Mirzapur it increased from 22% in 1979 to 43% in 1984 (an annual rate of increase of 6.3%). In Nasirnagar, where SCF's family planning program started in 1982, the prevalence rate increased from 3.8% in 1982 to 14% in 1984 (over 10% in two years). In at

family planning acceptors registered in 1982. In Rangunia acceptance has been consistently high (over 30%), declining slightly in 1983-84.

19 In Mirzapur, there is a PHC clinic in one village which is the center for all HNFP inputs for the impact area, all the villages are within a radius of about two miles. In Nasirnaqar there are three PHCs and a PHC will soon start in the Naghior area. In Rangunia, in addition to each VDC office, there is a small clinic in each village usually headed by a paramedic.

20 Most other PVOs who have had successful health and family planning activities (e.g., Gonoshashtyo Kendro and BRAC) have also located their basic unit of operation and their field workers in close vicinity and contact of the target clientele. In contrast, the basic health and family planning unit of the Government is located at the Union level, a large agglomeration of villages, and the field worker/population ratio is more than 10,000. This obviously reduces accessibility to the government program.

21 For example, the FC and the SDC decide, depending on the local needs, how they would like to allocate the time of the PDWs for the various components of the HNFP program. They can set up and cancel health campaigns and authorize transportation of sterilization clients. Disbursement of funds for various activities is also done at the field level by the field staff.

22 In the Kulkurmai village of Rangunia, for example, we found that the VDC chairman and several members know that family planning acceptance was much lower in one neighborhood, primarily a poor Muslim area, as compared to other neighborhoods which were mainly Buddhist and Hindu. They also explained to us special measures they are considering to improve literacy levels, economic conditions and family planning awareness. The VDC members themselves often try to set examples, for instance, one member of the same VDC told us that he has had a vasectomy and two others informed us that there were women in their own families who have had ligations.

23 AID, Draft "Health Sector Strategy" Paper, Washington, 1983.

24 SCF, "How We Work," Westport, undated.

25 Some examples of the various estimates of program costs during the last full fiscal year (1983-84) are as follows:

	<u>Total for Bangladesh</u>	<u>Cost Per Beneficiary in Bangladesh</u> ¹
1. Sponsorship funds for 3200 children @ \$192 per year	\$ 614,400	\$ 13.96
2. Total expenditure, including SCF management, general, and fund raising ²	\$ 589,589	\$ 13.40
3. Field and Westport program costs only (81% of total costs) ²	\$ 477,567	\$ 10.85
4. Field program costs only ³	\$ 238,154	\$ 5.41
5. HNFP costs (assuming HNFP is 13% of No. 4) ⁴	\$ 30,960	\$.70
6. Reported recurrent HNFP costs ³	\$ 17,702	\$.40

1 Assuming all of the 44,000 population in four impact areas are benefitting.

2 Extrapolated from SCF, "Save the Children Reports...Annual Summary," Westport, 1984.

3 See Appendix 15, reported to evaluators by SCF, Dhaka, 1985. Does not include expatriate staff in Dhaka, tertiary health care, etc.

4 See Appendix 24: 13% of SCF projects in Bangladesh are directly related to HNFP.

26 In one visit the evaluators were told that half the cost of medicines were recovered from fees for services. The BFO reports that 16% of recurrent HNFP costs are covered, but includes the value of volunteer work and in kind contributions as payments.

27 Assumptions: (1) there were 50 fewer deaths last year (42 infant, 8 child); (2) 13% of SCF projects were HNFP projects in 1982 (see Appendix 24); (3) the \$1533 is a proportion of total SCF costs in Bangladesh as reported by SCF/Westport; the \$619 is a proportion of field costs reported by SCF/Dhaka; (4) most estimates of cost per death averted exceed \$2000. See for example Lerman, S.J., Shepherd, D.S., and Cash, R.A., "Cost-Effectiveness of the Control of Diarrheal Diseases Program in Indonesia," WHO Consultant's Report, Geneva, September 1984.

28 In May, 1985 a major three year grant from the AID Child Survival Fund was announced which will sharply increase the funds SCF must spend in Bangladesh in the next three years. And last month an hour long prime time ABC-TV special featuring SCF's nutrition work in Ethiopia brought SCF to the attention of more Americans than ever before.

29 Telex from BFO to SCF Westport, Sept. 23, 1985.

30 SCF is in the process of developing a two year training program for its field staff, of which family planning training may be given priority. SCF may utilize one of the institutions which specialized in such training (e.g. Center for Population Management and Research, Concerned Women For Family Planning, or Family Planning Services Training Center). Alternatively, a training team may be developed by SCF composed of selected family planning trainers. Such an arrangement would be advantageous because these specialists can design the courses and curricula, and implement the training. The training materials should utilize as much information from the field as possible and make extensive use of real life case studies for problem solving.

31 One example: About 2 miles from Mirzapur there is a Family Welfare Center, the government's MCH/FP clinic at the Union level. When we interviewed the Medical Assistant and the Family Welfare Visitor of the clinic we found that they are aware of SCF's activities, are eager to share experiences, but have not had any formal occasion to do so. Since SCF's policy is to develop local capabilities, it is important to develop closer collaboration with government facilities near SCF areas.

32 An SCF operations researcher/HNFP information specialist will be recruited and trained in Dhaka, preferably in collaboration with James Phillips of the MCH/FP Extension Project of ICDDR,B. This person will work with the Statistician described in the request for 1985 funding sent to Westport in 1984. He or she will be specially trained to use the ICDDR,B software. The specialist will be trained and based in Dhaka but will make regular visits to each impact area to enter data (the computers must have special battery packs for portability). Data will be processed and analyzed continuously so that regular and timely reports can be circulated from Dhaka back to the field staff, to ICDDR,B, to SCF/Westport, to AID/Washington, and to the international health community.

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