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Basic Service Delivery in "Underdeveloping Countries": A View From Gonoshasthaya Kendra

Working paper prepared by Dr. Zafrullah Chowdhury

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BASIC SERVICE DELIVERY IN "UNDERDEVELOPING" COUNTRIES: A VIEW FROM GONOSHASTHAYA KENDRA

Dr. Zafrullah Chowdhury*

Underdeveloping Nations

The phrase 'developing nations', a somewhat more polite expression than the former 'underdeveloped nations', is by far the more inaccurate term. It misdirects our deliberation, while masking the real problems and allowing them to escape solution. In reality, most so-called developing countries are underdeveloping.

Halfdan Mahler, the Director General of WHO, stated that the average health care consumer was receiving less care in 1973 than he was receiving 25 years earlier, when WHO was created.[1/]

V. Gunaratne, Regional Director of Southeast Asian Office of WHO, the organization which is the custodian of world health programmes, laments thirty years after the inception that despite strenuous efforts over the years, both by governments and by WHO, to strengthen health services, the basic health needs of the vast majority of the population in the developing countries remains far from being met in a satisfactory manner.

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It was not war nor epidemics that brought on the higher dealth rate experienced in many countries in the seventies. It was hunger and the stress of malnutrition. Once fertile Haiti is producing less and less each year, and the nomads of the Sahelian countries, once capable of 'eking out an existence in the harshest of environments, have been forced into feeding camps to become ecological refugees.' Ethiopia, is travelling the same sad path. "In a world without an adequate system of food reserves, rising world food prices translate into rising death rates among the poorest of the poor."2/

In the Philippines, and certainly more so in other countries, including Bangladesh, about 70 per cent of the people die without seeing a doctor.3/

Even today in Africa, women do 70 per cent of the work in food production, 50 per cent in animal husbandry, and 100 per cent in food precessing, household and child-rearing, yet are comparatively disregarded in government health, education, and development programmes. It is the same throughout the poor nations.4/

Bangladesh: an example among many

Indicators of a progressive underdevelopment, where 'the poor get poorer,' are frequent and decisive. Bangladesh, while possessing its own unique characteristics, is still typical in many ways of the underdeveloping nations. Remembering that the difficulties of Bangladesh are repeated in many places throughout the world, let us look briefly at this part of the subcontinent in terms of the deteriorating trend.

Education: irrelevant and expensive

In the field of education, a frequent, unquestioning imitation of Western fashion, often regarded as dogma, has created a system which is not only irrelevant to the population in general, but a distinct drain on the society's scarce resources. While the number of universities has increased, and the number of doctorates and master's degrees conferred grows larger, the rate of illiteracy becomes higher. In 1961 it stood at 78.9 per cent and now in 1977 it is 82.4 per cent.

In the agricultural university, even in 1973, there were 72 Ph.D.s and 130 Masters in Agriculture. But students remaining imprisoned for a five-year term within the college campus, contribute little to meeting the country's agricultural needs, even after graduation. And this, despite the fact that it takes 30 years of a farmer's labour to keep one student in the university for one year.[5]

A minimum of 10 years general and 4 years specialized training is required to create a nurse who will have the skills of writing reports, counting instruments, and making beds in an urban hospital, as well as having a psychological disability for doing any 'dirty jobs.'

The number of medical colleges and nursing institutions has increased while only 5 per cent of the population have access to modern medical care and clean water and sanitation.[6]

In the annual development plan for 1976-77, the Bangladesh government allotted a special grant over and above the regular budget for 445 million taka, to six universities. This amounts to approximately 24,000 students or 3 per cent of the student population and .03 per cent of the entire population. The grant was made at a time when the government was supposedly placing emphasis on rural development.

Cooperatives: a form of rural exploitation

But education is not the only class-creating element in the society. Twenty per cent of the population of Bangladesh owns 70 per cent of the land. And 21.4 per cent of the total cultivated land is enjoyed by absentee landowners. Three per cent of the population are becoming landless every year, due in large part to the system of cooperatives and credit. Back in 1973-74, we observed that "when a land-owning family forms itself into a 'cooperative' it continues to enjoy its exclusive control of land and equipment, to monopolize capital, including government loans, and to exploit the small man .. It is a novel form of rural capitalism in disguise. The small farmer and the agricultural labourers are still downtrodden; the landlords and money-lenders are still in control."[7/] In the same year, 1974, the Bangladesh Planning Commission reported that the "...co-operative societies have turned into closed clubs of the *kulaks*.. small farmers are entirely un-represented in the leadership."

The situation today is substantially the same. Recently the government allotted 1,000 million taka in agricultural credit supposedly available to all. But the share-cropper must be guaranteed by the union Chairman, and, as 61 per cent of this group belonged to the rich farmer class even as far back as 1961,[8/] the money-lenders would come from among their relations. There would be no advantage to a Chairman to certify a share-cropper for a government loan. And the share-croppers' economic situation would be apparent reason for refusing the letter of credit. Had the money been properly designated, it would have gone entirely in loans to the share-croppers.

Akhter Hameed Khan, reflecting on his experience of founding co-operatives in Bangladesh, remarks how "It was no easy job. The rural elite, hand in glove with the urban elite, yielded great economic and political power. It was going to use that power to defend its privileged position... The time may come when working quietly around them will no longer be possible."[9/]

Women

"The greatest single cause of the tragedy of Bangladesh is the place that has been allotted by history, society, and life itself to the women in the nation. Chained by culture, ignorance, fear, poverty, she is, in the words of a paramedic, 'not a wife or a woman, but a slave". Hard and continuous labour with always the last portion of food; she cannot afford to fall sick. A slave unable to work is discarded, and this would be her fate as well. Divorced, not accepted by her parents to whom she would only be another mouth to feed, and a disgrace being separated from her husband, neither can she find employment to support herself. Now she can choose. As a beggar she may go to the town and there discard the last shred of any human dignity she may have had, or she can take the more attractive way of insecticide poisoning.[10/]

"The pounding of a wooden pestle in a hollowed stump may have a romantic sound, but it is the sound of wasted human energy by those treated for many generations as second class citizens." 11/

The welfare of the child is inextricably and inseparably bound up with the welfare of the mother. Better nutrition and service delivery depends most on the advancement of women. Programmes of child care and national development can only mirror the position of women in their effectiveness, and their effectiveness is in a state of under-developing. The position of women in much of the world's society, remains an ugly scar.

Poverty and disease

Caught in the trap of poverty resulting from over-population, the landless and the poor, women and children, are an easy prey to the consequences of ill health and poor nutrition. According to the 1962-64 Nutrition Study of East Pakistan, 46 per cent of the population of Bangladesh consume inadequate calories and 60 per cent inadequate protein. Ninety-five per cent of the pregnant women suffer from iron-deficiency anaemia, while 50 per cent of preschool children based on height/weight standards, are malnourished. 12/ The situation has worsened since then.

Malnourishment increases susceptibility to diseases. So also disease contributes to malnourishment. In Bangladesh, the high mortality rate for measles; 190.6 per thousand to India's 95 per thousand, and Hong Kong's 4.7 per thousand, is because of malnourishment. 13/

Nutrition should not be treated simply as a 'line-item' in the budget. Malnourishment, associated with poverty, lack of participation, ignorance, and other characteristics of under-development, is but one of many expressions of a deep defect in the society.

In Companyganj, Noakhali in southern Bangladesh, an area with a population of 120,000, a survey showed the death rates of the thana in reference to land holdings. The crude death rate for the landless is indicated as being markedly higher than the rest.14/

Area of Land per family	Crude Death Rate	age 1-4 Death Rate
0	35.8	85.5
.01-.49	28.4	48.2
.50-2.99	21.5	49.1
3.00+	12.2	17.5

As in other underdeveloping countries, diarrhoeal diseases are the leading cause of death in Bangladesh. Intestinal parasite diseases, an indirect cause of death, are rampant. 97 per cent of the population are infested with helminths. In Sri Lanka it is 95 per cent of the population, and in Venezuela, 93 per cent15/ Diarrhoeal diseases, diptheria, whooping cough, measles, tetanus, and tuberculosis, are the communicable disease which dominate the mortality scene in Bangladesh. In recent years malaria did not figure in mortality. This year its morbidity is up to 26 per cent in some areas. Even in 1972, smallpox was a killer.

Tetanus accounts for 22 per cent of the infant mortality and over 35 per cent of all neonatal deaths. In some parts of Bangladesh, tetanus accounts for over 43 per cent of the neonatal deaths.16/ Maternal mortality is 20,000 per year, accounting for 7.7 per thousand live births. In the Philippines the rate is 2.1 and in Thailand, 3.117/. Children under one year of age account for 16 per cent of the general mortality rate. Those under 5 years, account for 26 per cent.18/ It is the poor and the children of the poor who bear, by far, the major share of the burden when it comes to illness. Yet 90 per cent of the government spending on health goes to 6 per cent of the people, and the wealthiest are found in that 6 per cent, not the poorest. Medical students are still trained to meet the needs and stresses of the wealthy and are taught nothing of the so-called 'tropical diseases' more correctly termed, 'diseases of the poor'.

The undelivered services

As the health care system operates generally within the institution, it has become almost totally curative in nature. Distance from the institution is for the most part a serious impediment. The rural health centre, planned to serve 150,000 to 250,000 people reaches approximately 10,000 to 20,000. One Indian study showed that over 60 per cent of the patients come from within a one-mile radius of the primary health centre. The proportion of the community availing itself of the services decreases 50 per cent for every additional half mile. The health care is ineffective in providing maternal and child health, nutrition, immunization, environmental sanitation, and water supply.[19/]

Cholera or dehydrated diarrhoeal patients arriving at the health centre within 3 hours of onset, run no risk of death. Ten per cent fatility in cases of belated arrival of 3 to 6 hours can be expected, while the fatality rises to 30 per cent in case of over six hours delay.[20/] Similar situations have been observed in some cases of delayed obstructed labour, eclampsia, and some abdominal surgical problems.

This situation has necessarily led the patients to regard the health centre more as a death and disease center, and in turn try to avoid it when at all possible.

In Bangladesh, as in many other countries, physical facilities do exist that could be utilized to bring the service closer to the people. Over 4,000 union seed stores alone, presently lying idle, could be available to the rural population for health care. (The union is an administrative district comprising of 15,000 to 20,000 people). Instead we tend to build new and impressive buildings for the sake of donors, and perhaps to nourish our own feelings of accomplishment.

Disintegration of services

The initial plans of the government in 1972 took an integrated approach to health and family planning, which two years later due to pressure from foreign agencies, was weakened. A family planning ministry was created, and a division of 'services' has come about, playing havoc with the health care programme and with family planning results. The split of services resulted in a duplication of doctors, with 'family planning doctors' being paid 35 per cent more than 'health ministry doctors', even though the latter had more work. In turn, the family planning doctors, often idle, do not have all the facilities to carry out certain family planning measures such as abortion. Programmes for population control were introduced into the country with no real understanding of the village life, where the programme was to be incorporated. An artificial, vertical approach, which ignored maternal and child health, was pushed, and government incentive replaced education and motivation with the resultant corruption of those administering the 'giveaway' programme. A client follow-up of the 1969 East Pakistan vasectomy camp showed 64 per cent exaggeration of the number of clients. A national IUD retention study in East Pakistan was the occassion of 34 per cent of the clients admitting they had <u>never</u> used an IUD.[21/]

Though the structure of services has been disintegrated, it is nonetheless heavily centralized. As Higginbottom remarked of Indian service, '<u>it is a matter of orders down and reports up</u> ...morale at the bottom where the problems are, is low'.[22/]

To solve the problems of disintegration and over-centralization, the experts appeared on the scene. <u>Large numbers of foreign individuals and foreign agenceis, still increasing, are a sure barometer of the under-developing position of the country</u>. And they often only tend to complicate and misdirect an already difficult situation.

"...it is apparent that we are dealing with multiple layers of institutional structures, almost all of them taking their origin from Western sources. The process started with a Western trained medical profession and continued with the sanitary inspectors originating in the British Empire, the malaria programme established by WHO (with help from all of us), the rural health centers devised by Western public health experts, and most recently, the family planning programmes. All of them were started with good intentions, all of them are firmly established bureaucracies...and together they make a terrible mess."[23/]

Gonoshasthaya Kendra: an integrated approach

"The health problem in our rural areas is a consequence of underdevelopment and at the same time a cause for its perpetuation. Malnutrition, for example, is basically a problem, not for the physician, but for the agronomist, the teacher, and the community organizer."[24/] A strictly medical approach cannot produce a healthy community; without the involvement of the community, anything that is produced will have a questionable value.

Originally the idea of a group of young Bengali doctors, the Bangladesh Hospital came into being during the war of liberation in 1971 when it served refugees and Mukti Bahini (liberation forces), on the Indian front. At the close of the war the hospital moved back to Bangladesh and into the rural area of Savar thana, an administrative unit of about 200,000 population, without a health centre, to face another problem of similar magnitude. Health service to the heavily populated rural areas is virtually non-existent, and it was to this task that the newly named Gonoshasthaya Kendra, (meaning People's Health Centre,) set its sights.

Background

Since the time of the British Raj, the provision of health education and immunization programmes has been to appoint one sanitary inspector and a few health assistants per thana. All central government employees, they are given no supervision, and poorly paid to operate the programme, which has no provision for community involvement. Whatever effort was put forth has been proven ineffective.

In coming to Savar in 1972, we initially held numerous meetings both with villagers and students in the area; trying to determine the best methods for bringing service to the people of the area. We came to envision a centre base, which would act as referral point for a number of sub-centres, which would be built on donated land with local labour when possible. Initially we recruited over 100 part-time volunteers from among the students, who would carry out the vaccination and health education pro grammes. Land was donated for the main centre at Savar, and the programme was underway.

During the meetings with the villagers, often dominated by the rich who were the more vocal members, a decision was taken to charge a flat fee for all families. This was a minimal 2 taka*. We projected that 10 per cent of the population would be unable to pay even this, but felt that the rich would cover the expense for them. Later we realized that the decision of a minimal flat fee was mostly the rich members' doing, and we modified our policy in regard to sick room admittance, charging different rates to the poor and the rich. Admission fee for the rich is 10 taka and 5 for the poor. Fees per day, are 1 taka for the poor and 2 taka for the rich.

From the beginning we made efforts to assure that Gonoshasthaya Kendra would be a People's Health Centre, rather than a "community death and disease centre." Preventive programmes were empahsized and integrated with other areas of life that had bearing on health, such as nutrition and agriculture and family planning.

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* US$ = Taka 15.00

The Paramedic: a villager

In time we also discovered that the part-time volunteer workers would not be able to fulfill the demands the project work was making on them. We realized that a full-time, paid worker was needed.

It was at this time, 1973, that we developed the concept of paramedic, which has continued to evolve while retaining the basic characteristic of a worker who brings community development services to his own village.

From the beginning we realized that a majority of girls would be needed, if we were at all to reach the women of the area. During the day, when the men are often not present in the bari (home) it would be nearly impossible for the male paramedics to gain entrance to the village home.

Also, the paramedics are drawn from the area which the project serves, thus they will be working in a familiar locality and communication will be at its best. They range in age from 17 to 25 years. Their training is carried out in the field where they take part in the delivery of services, carefully supervised and supported by the doctors. Some theoretical classes are given in the evenings. But the greatest strength of the paramedic is his or her closeness to the village, its unspoken needs, its wisdom, and its ways.

The paramedics are trained in the areas of health, education, nutrition, and hygiene, curative care at the centres and at the clinics, immunization programmes, ante and post natal care, normal delivery, family planning, including motivation, delivery of services, and follow-up.

Also, a part of their curriculum is basic pharmacology, record keeping and pathology needed for village work, such as examination of stool, urine, blood, and sputum. They do minor surgical procedures and are capable of performing female sterilization independently. Their service and support extends out into the economic sphere as well, for they are trained to give advice in regard to agriculture and livestock, and to inject poultry. An understanding and sensitivity to the life of the village is seen in the approach taken by the paramedics. They do not preach vitamin A capsules, but rather local green vegetable. They do not ask the mothers to go (usually some distance) to a tubewell for bathing. If the tubewell water is used for cooking and drinking, they are pleased for the present, realizing the imprudence of trying to get a busy mother to do the impossible. Knowing that latrines were not available to all, they educated the villagers to pass stool in one fixed spot. And,unlike the doctor who doled out 2 to 6 large piperazin tablets, (the child's dose for intestinal infestation with round-warm,) to be taken at home, the paramedic had the child take the required treatment in front of her. She is aware that a mother would be hesitant to give such a large dose of medicine to a child at one time.

The same was the case in the treatment of scabies. The paramedic knows a mother would not wash her child at night (before applying the scabies medicine) for fear of his catching cold, though this was the recommendation of the doctors. The paramedic, who sees the patient not only in the clinic, but in the home as well, washed the child in front of the mother and other villagers who happened to gather, and then applied the medicine.

It was also the paramedics who questioned the wisdom of the ante natal clinics. Of the population being served in one sub-centre area (15,000 to 20,000), there would be approximately 800 pregnancies in a year. Out of this number no more than 15 to 20 per cent would be "at risk" pregnancies, that is, women requiring special attention. Gathering all of the women and having them sit unnecessarily was neither an efficient use of their time nor of the clinic's. An alternative was to have the paramedics pay regular visits to these 'at risk' pregnant women most likely have difficult labour or other pregnancy problems and give them the necessary instruction and observation. The result was no maternal death in the area.

Further effectiveness of the work of the paramedics in health education was seen when an evaluation team recently visited the area and found virtually no skin diseases, nor did they come across any diarrhoea. This did not mean that there is no longer any incidence of diarrhoea, rather now the mothers know how to mix the rehydration fluid, and will use it when diarrhoea occurs.

The following comparison of Gonoshasthaya Kendra's service area statistics from a sample survey of 16 villages with a population of 10,885, with those of the national average is also an indicator of the effective work of the paramedic.

	Gonoshasthaya Kendra	National Average
Family size	5.9	6.4
Birth rate	36/1,000	47/1,000
Death rate	12/1,000	17/1,000
Growth rate	2.4%	3%

The selection of the paramedics involves the villagers. This leads to a greater responsibility for the programme on both sides. Members of the community chosen to interview the new recruits are older villagers, but from among the poorer class.

In the delivery of the service, distance is always a factor. We sought to somewhat overcome this by the use of bicycles. Though quite acceptable for boys, girls on bicycles was a revolutionary step. It took little time to win over the villagers to the idea, however. Rather it was the more 'educated' and 'religious' leaders who balked at the idea. But the idea prevailed and serves not only the aspect of transportation, but is a definite step forward in the liberating of the women.

The Subcentre: a community centre

At communicating distance from the main or referral centre, the subcentre serves as a grass roots, community-centered, base, which generally speaking, renders all those services available at the main centre; curative medicine, pathology, minor surgery, including tubal ligations and facilities for obstructed labour. The subcentre also serves as a storage place for poultry vaccine as well as general drugs, and vaccine for immunization of the general population. It is a centre for vital statistics, information, records, the place of payment for services, and women's vocational training. A gathering place for the local community it will eventually become a general educational resource.

The structure was made by local craftsmen with local materials, and as it is not alien from their culture, villagers were inclined to give advice in regard to its design and construction. Community involvement was strengthened from the beginning.

The subcentre is meant to serve an area of 10 to 15 villages, with a population of from 15,000 to 20,000. There would be an average of 3,000 population per paramedic at the subcentre, and one dai (traditional village midwife) per 1,000. Also one female villager worker, per 1,000 population. The village worker and the dai together would cover the following areas of activity: Deliveries, basic child care, family planning (service and follow-up), tubewell maintenance, taking children to school, livestock immunization, vocational training of women, food and seed processing and storage, preservation of surplus fruits and vegetables, and the planting of fast-growing trees for firewood and compost. Each subcentre would also have one supervisor for the overall community programme.

The insurance scheme

From the early stages of the programme, February 1973, our insurance scheme was inaugurated in two unions and a few surrounding villages (population of 30,000), near to the main centre. Payment was two taka per month. Initially we had 60 per cent acceptors, but the default rate was large, and the poor, unable to pay, tended to remain away from the clinic for fear of having to make the arrear payments. After meeting with the village headmen we had further discussion with the villagers and introduced a second form of payment which was an initial 10 taka payment for enrolment fee, and then 2 taka per visit.

This proves to be more acceptable, but the question of insurance still remains a problem one we will have to continue to face with the villagers.

The funds that we are presently realizing from the 3,647 families enrolled in the first scheme and the 1,386 enrolled in the second, meet approximately 40 per cent of our recurring expenditure. In all, the community of over 100,000 population pays approximately 150,000 taka out of the 400,000 which is our total recurring expenditure. See Annexure I.

One factor we realize now is that the very poor which we originally believed to be only 10 per cent of our service population, is in actuality closer to 20 per cent. This group, no matter what variation the insurance scheme takes, will be unable to meet the payments. Yet it is basically for them that the centre exists.

<u>On doing stupid things</u>

Sometimes we amaze ourselves at how long we, and others, take to notice the obvious. For instance our BCG programme which was done on a limited scale the first year due to unavailability of the drug, was also delayed from being done on a large scale basis for nearly another year. This was due to the fact that we did not have sufficient spirit lamps for sterilizing the needles. It finally came to our notice that every village home contained a lamp, though not as sophisticated in make, certainly as effective for our purpose.

UNICEF distributed vaccine (BCG) for the immunization programme and donated refrigerators to each of the rural clinics. The difficulty is that the refrigerators for the most part are used to store teacups of the like, as, due to some small technical disability, they are not working.

Bringing the vaccine to the villagers presents a further problem. Even in working order, the refrigerator has its limitations. For carrying the vaccines out to the village, small flasks are necessary for storage.

170,000 hand-flush, WHO, water-seal latrines, calling for 2 gallons of water, are hardly practicable, even if the water is available. In Latin America they are often used as chicken coops or grain silos.[25]

Villagers also complain about the difficulty of bathing at a tubewell where one is forced to somehow pump water with one hand and manage to bathe simultaneously.

The government family planning programme, haunted and hounded by overseas groups, has been a painful example of doing nothing at great cost. Back in 1973 one rural development worker wrote from Faridpur, "After five years work in (Rajoir) thana there are 30 female clients and less than 100 male clients in a population of 144,000. But the family planning staff is about six at the thana, and two in each of 10 unions. There is a nice bungalow, and offices. But no output."[26]

Education: relevant and inexpensive

The degraded social position of the women in the villages was what first moved us into the field of education. We felt that if they could receive some training that would provide them with a marketable skill they would eventually gain a certain economic independence and resultantly, respect.

At the time when the family planning programme had its 'year of inundation', there were not enough pills to give regular supplies to our clients in Savar. One young women, experiencing heavy bleeding as a result, was not able to carry on her regular work programme. It was harvest time, and her husband, refusing to understand her position, turned her out of the house. Going back to her parents in disgrace, she attempted to kill herself by taking poison. She was brought to our clinic, where we managed to save her life, but she cursed us for bringing her back to the cruel and heartless reality she had to face once again.

Jorina's position was somewhat the same. Her life being made intolerable by her husband's beatings, she finally left him. Separated from her husband she was regarded with disgrace by the villagers, and was an embarrassment to her parents. Remembering the young woman who had been brought into our clinic, and wanting to save Jorina from a similar fate, we asked her to go to Dacca and train for jute handicrafts, which she would in turn teach to the other women. She accepted the opportunity, returned to give her classes, and through her new economic dependence won the respect of the villagers and a new life for herself. Her husband, too, seeing her present state asked her to return to him. Our jute handicraft classes were off to a good beginning.

The use of the sewing machine was next included, and as the number of women and girls attending the classes grew rapidly, a further programme was introduced. Classes in hygiene, nutrition, child health, family planning, and some literacy, were added, and the attendance continued to grow. One old man complained "you have brought our women out of the house," while during a morning 'discussion' one woman told us. "We have no honour in our homes. Here we have honour." It is by such comments that we can measure the steps of our effectiveness.

But handicrafts and sewing offer a limited market. Our next step in the process of evolution was to inaugurate a machine and carpentary shop in which both young men and women from the villages would be trained to produce items of appropriate technology. From the main shop, a trainee would graduate and return to the village to establish a 'sub-station' or small scale shop carrying on the same type of work and being visited on a regular basis by the engineer from Gonoshasthaya Kendra. At present there are ten trainees, five boys and five girls. The group, unlike the paramedics who have at least 10 years formal schooling before coming, represent the poorer class of villagers. The girls appear to be the more serious and responsible workers, though the boys, too, exhibit real industry and talent. The myth of the woman's inferior physical strength is gradually disolving. There is a tendency among the boys, to whom work in Dacca would be more available than to girls, to want to learn such specialized and saleable skills as welding, and then leave for a lucrative work in Dacca. Due to this we have concentrated more on training the girls in the specialized areas.

One of the questions put to us by the women during one of their own classes, was 'what about our children?' And this is the question we in turn asked ourselves. Education should not instruct people to do impossible things. Nor to do useless things. It should be something which the villagers feel they have need of, something they know to be possible in their situation. Education then should be practically attached to the needs of the immediate environment. For the children of the very poor (landless) we began our 'functional school'.

Bangladesh government statistics indicate that 56 per cent of the nation's school-age children do not attend school. Surveys show that only 14 per cent of those attending continue after five years and only one per cent go on to college or university studies. On completion of this 'higher education' students generally remain jobless. In the case of girls, 14 per cent complete 5 years of schooling and boys 33 per cent accroding to a survey conducted in Savar.[27/]

It is assumed that the Bangladesh literacy rate is approximately 20 per cent. In 1972 we did a survey of 28,736 people in the villages around Savar, which is located near the city of Dacca. Using the ability to read a newspaper in the vernacular as a criteria for literacy, we found that 8.4 per cent of the men and 1.2 per cent of the women were literate. We also discovered that at least five years of schooling is necessary for a person to maintain this ability to read.

A further reason for the lack of attendance in the schools is that the teachers are often absent. This occurs because the school is controlled by the thana education officer, an employee of the central government, rather than by the village itself. We noticed a marked difference in the case of the Madrasha, the religious school, where the teacher is paid by the local villagers. The community control is real, and the teachers are generally present, and teaching. Also as there is usually only one primary school per 4 to 5 villages, this means a fair distance for most to travel, and makes attendance for the young children more difficult. We noticed, perhaps because of this, that the school age population (in the primary school) was generally from 7 to 15 years, while at the madrasha it was 5 to 12.

Neither do economic conditions make attendance at primary school an easy matter. Though free per se, books, notes and other hidden expenditures incline parents to employ their children in more gainful work. Initially the school at Gonoshasthaya Kendra is limited to an enrollment of 50, but will expand to 100 after the first year. Students accepted are between the ages of 4 to 10. As the paramedics have surveyed the villages and have access to them, a careful study was possible, and only the very poorest were chosen to attend. The site of the school is at the project land in Savar. A mud building has been erected, along with bamboo, swing, slides, seesaws, etc. The areas of health/hygiene, physical education, carpentry, machine shop, agriculture, music, arts and crafts, will be included in the curriculum.

To overcome the difficulty of young children travelling the distance to school, an arrangement was made whereby a woman from the village brings the children to the school and remains at the center during the day, where she herself can participate in a training course. In the afternoon she is responsible for returning the children home. It is hoped that the school will be an integrated part of life for the children, enriching the natural flow of their activities and not becoming something alien from their everyday needs.

Before noon, some of the children whose families own a cow leave for about an hour to bring the cow home. Failure to do this would result in the animal being put into the 'cow jail' and payment would be necessary to retrieve him. When harvest time comes the children will be needed to bring food to the men in the fields. They should not feel that they are merely 'absent' from a school that is unaware of their other duties. Rather the school should continually ask why their fathers do not have their own fields to cultivate.

Two children at Gonoshasthaya Kendra

Our project community has extended to all ages. Mazedah, an orphan of about 7 years, but looking more like four, approached us at a clinic we were holding in the northern part of the country. Among a host of repulsive qualities she had one saving factor - a delightful smile that somehow seemed even a bit too big for her small body. Her story was simple, tragic, but unfortunately far from being unique. Her father had died, and though her mother made gallant efforts to support her family, the odds stacked against her were too great. Mazedah related to us how one day her mother had eaten something, became sick, and died. The villagers washed her mother with scented soap, wrapped her in a lovely white cloth, such as she had never worn in her life, and put her body into the river, the merciful grave of the landless. The river would not take Mazedah, - yet. She came back to Gonoshasthaya Kendra with us, and within a matter of weeks, her worm infested little body, at the cost of about 6 US cents, was cleared up. It did not take much food to make her body healthy again, though her ability to learn is at least temporarily impaired. Khorshed, also from our northern clinic, came to us after having been two days without food. His parents were living, but destitute. He too came back to Gonoshasthaya Kendra. Gradually Korshed told his story. "He had had five brothers and two sisters. Five of them had died in the last year, three of them in the last three months. They had been living on sweet potato, which eventually gave out. And as the food stopped, the diarrhoea started. His father now saw that the children were passing fluid and would not allow them to take water. Without food and water the symptoms appeared rapidly - might blindness, swollen legs, and death. Each had met it in the identical manner. His father had realized that medicine might help, yet he also realized that 'free medicine' from the local hospital could only be gotten with money, which made it more unobtainable than food. So he took his dying children to the local priest." But this also proved a fruitless endeavour. Korshed realized that soon his sister would die. She had been afraid to come into the town to beg, an alternative that Korshed knew held his only hope. But his life in the town had not been that successful either.

He said his father had not always been poor. Once they had land, till a flood came, destroyed the crop, and the land was mortgaged for food. Money-lenders are not easy people to deal with in any country. The Muslim money-lender, forbidden by Muslim code to take interest in cash, makes out twice as well by confiscating crops, and lands, Such was the case with Korshed's father who lost what he had to the '<u>Mahajan</u>' (money-lender) and was silently swallowed up in that 41 per cent "who have no rights to any harvest."[27/]

Peasants and graduates

The matter of moneylending is a particularly critical one in Bangladesh. "During the last three months of the Bengali year, the landless, and poor farmers of Bangladesh, find themselves, generally speaking, short of money for food and other necessities, and are forced to borrow. The money-lenders to whom they must necessarily turn, charge them exhorhitant rates of interest. For each 100 taka they must return an interest of 30 to 40 kilograms of paddy in a 3 to 4 month period, an equivalent of 250 per cent interest."

In regard to the cooperatives of the country, Rene Dumont has shown that 20 per cent of the rich farmers borrow 70 per cent of the cooperatives' money, and that 80 per cent of all defaulters are the rich farmers, whereas the poorest farmers always pay back the loan. We initiated the following small project to more clearly see the difficulties and how they might be met. Sharecroppers and poor farmers living in village surrounding the project, with which we had relatively close ties, were given loans of up to 200 taka each, during the difficult period when food is particularly scarce, at half the regular interest rate. The interest is used for creating revolving capital. The reaction of the village money-lenders was not hard to predict.

A further attempt to assist the farmers of the area has been with experimenting in the line of agriculture on our project site. In 1974, we made an attempt to find someone who could head up our agricultural work. At the time, we wrote the following regarding our experience.

"As yet, we have failed even to find someone to take charge of the programme. Our attempts to do so have taught us something about the education system of Bangladesh, but this is all.

We advertised in several newspapers for an experienced, practical man to supervise farming work at our centre. Forty applicants arrived for interview. All but two were agriculture graduates (one with a double first class), and four had had training abroad. Instead of a simple interview, we had a practical exam, followed by a written test, and finally a vivavoce.

In the practical exam, the candidates were asked to plant a coconut seedling and prepare a vegetable seed bed. Almost all were unsure of which tools they should use. Some made holes far too big or too shallow for the seed coconuts. Then they had to identify a number of samples of seeds, fertilizers and insecticides. Although, with the exception of soyabean, all the items were in common use in Bangladesh (any 'uneducated' farmer would have got full marks), none of our candidates scored more than 65 per cent. Not one of them could recognize the common insecticide Malathion. In the written test, the applicants were asked to say what was needed to improve agriculture in Bangladesh. Remembering what they had been taught in college, all gave the stock answer: mechanization. But when, in the vivavoce examination, they were asked about particular machines,it came to light that only one of them had ever driven a tractor; few had seen more than a couple of deep tubewells in their life; none had any clear ideas regarding servicing and fuel supply for machines in rural areas, or about the cost-effectiveness of these machines in comparison with traditional methods.

We appointed the man who seemed least remote, from the realities of farming. He left us after a few weeks, saying he coundn't stand working such long hours outside in the sun."[28/]

Life and death: water in Bangladesh

They have no king, the rivers of Bangladesh. At whim they rise and fall, and carry the fate of eighty million people in their course. Destruction, drought, dehydrated bodies, disease in a myriad of forms, - green fields, ponds, fish, fertile soil, - water, the first authority in the land to whom poor and rich alike make their appeal. Burnt or flooded, the lands seem to know little moderation. And for want of water, or because of flood, too long a period of each year the lay idle, yielding nothing.

Bangladesh has a farm labour force of approximately 19 million men. Now, with only 21.75 million acres being cultivated, only 12 million are employed and 36 per cent is unemployed. However, if land was used to its maximum advantage, rather than only producing the 1.3 crops per year as now[29], there would be a shortage of labour. Sixty-seven per cent of the land in Bangladesh requires irrigation, yet indiscriminate use of deep tubewells often hinders a problem the wells could go far in solving. One deep tubewell should irrigate an area of at least 100 acres, yet there are numerous instances where 4 or 5 such wells are installed within a mile radius. Often this results in a too rapid use of the ground water and in local handpump wells going dry.

UNICEF, too, has been approached to pay homage to the problem of water, and admirably put its efforts into supplying handpump tubewells. Initially this was done without any charge to the community. However, when given free, the opportunity for manipulation was facilitated.

Generally the pump was situated close to, or within the compound of the wealthy man, the man with power and influence, and such a site was hardly appropriate for the community as a whole. The pump was 'his' until the inevitable day when it joined the 50,000 (fifty thousand)[30] pumps of the country, and became 'inoperable' usually for some slight technical reason, and often only a few months after installation. When broken, the government's true ownership of the pump was quickly recognized.

UNICEF's aim has been to supply one pump for every 200 people. Our suggestion was to make an initial payment of 25 paisa (US 4 cents) for each person using the pump. This would insure it being placed in a position advantageous to all members of the village. The village chowkidar, who could be compared to a local policeman, is now hired to take charge of four to five villages. He has among his duties, the task of collecting statistics for the sanitary inspector, and is paid about 30 taka per month. This could be supplemented with another 30 taka, the chowkidar could be given some instruction, and he and his wife could be placed in charge of the pump, maintaining it in working order, 'surveying' to determine who was not using the pump, and 'educating' in order that the pump would be given maximum use by the majority of the people. His duties would extend to the use of latrines also, that is, sanitation in general.

UNICEF did alter its original scheme, and decided after three years to make a charge for the pumps -- 250 taka for each pump installed, with no further payment required. <u>Any one individual could make this payment of 250 taka. Now the rich man could establish his full right over the water.</u>

Not installation alone, but real availability of water and latrines for general use will contribute to the better health of the community, cutting down on intestinal and diarrhoeal diseases, and skin conditions. Dr. Mujibur Rahman, acting director of the Cholera Research Laboratory in Dacca reported that study had shown the incidence of disease is decreased, by providing plenty of water, irrespective of the quality. And an uncared for latrine has no appreciable effect on community health. The sophistication, or difficulty of construction is not the determining factor of effectiveness. Rather a simple construction, that can be cared for as necessary, and is convenient for use.

There are 0.63 million acres of derelict ponds and tanks in Bangladesh. If these were excavated and made fit for pisciculture, the process would provide work for four million people for five years. If 75 per cent of the tanks were productively used, they would provide 0.3 million tons of fish in one year, and the rain water caught in them would irrigate 0.2 million acres of HYV rice (1.2 million tons), 0.1 million acres of wheat (750,000 tons), and 0.1 million acres of green leafy vegetables (10-15 million tons) in a year. This would be a total of 15 million tons of food.[31/] The food produced last year, the Bengali year 1383 (The 12 month period beginning April 1976) totalled only 19.4 million tons.

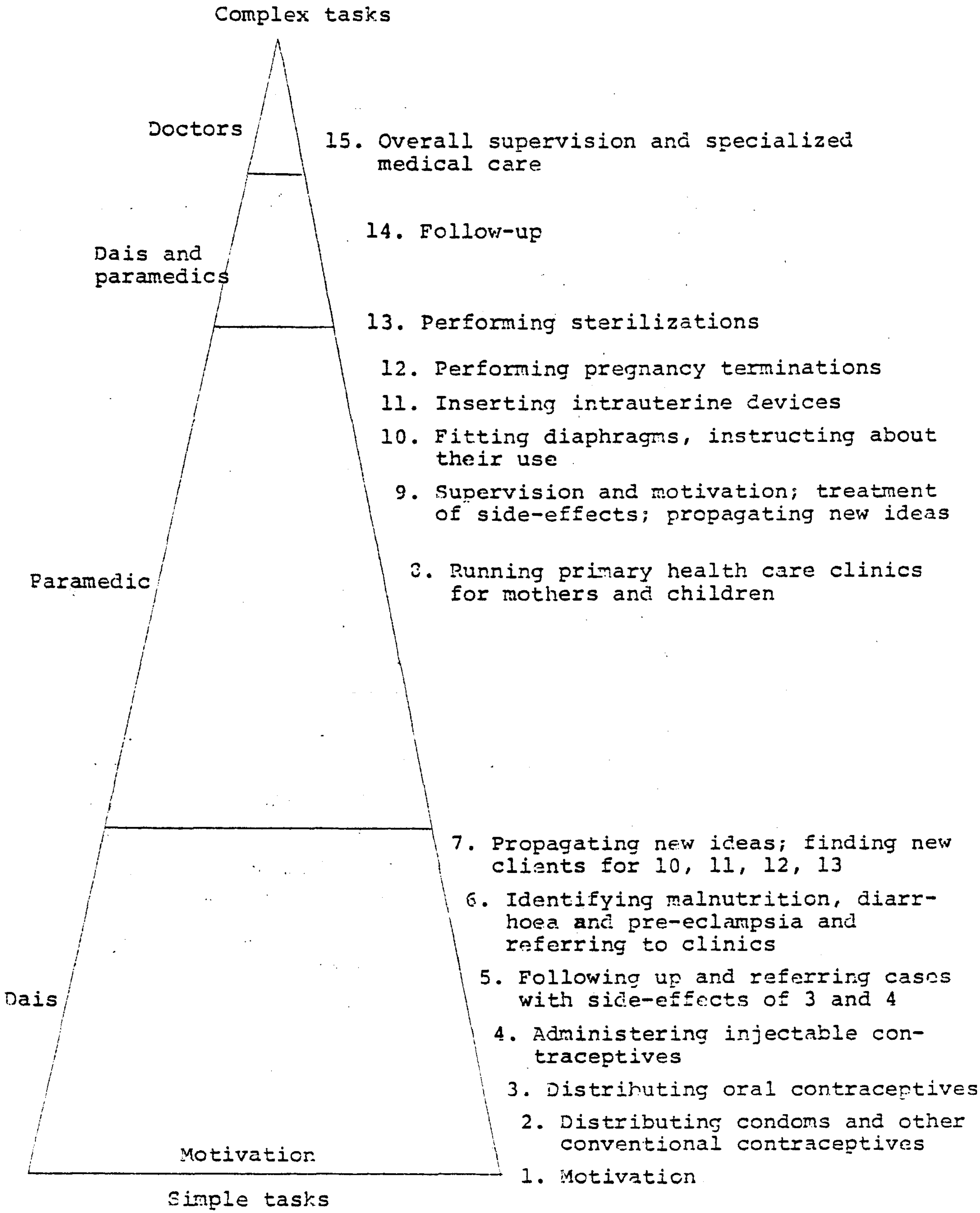
Family planning

Even as we first undertook the project work we became aware that a demand for family planning services existed in the villages. The source of supply was lacking. And so, from the beginning of our programme we began offering family planning service, but always within an integrated programme. Without real efforts at assuring parents that their young children would reach adulthood, we felt, we could not deny them the right to sons and daughters of their own. The programme therefore has placed efforts into providing the needed health care, educating parents regarding birth control methods and family planning in order to properly motivate them, and, once the method was chosen, to carefully follow up each client with house to house visit on a regular basis.

The traditional birth attendant, or 'dai', has also been successfully incorporated into our programme. Remaining in the village, she works on a part-time basis, distributing pills, checking for side-efforts, assisting where possible, and referring to the centre or sub-centre where needed. She is also taught to spot pre-eclamptic patients and other possible labour and birth difficulties, and to instruct the mothers in regard to child care. Because she is village based, her drop-out rate in regard to family planning acceptors, is lower than that of the paramedic. (See figure 1)

Since the beginning of the programme in 1972, we have noticed a steady pattern of clients moving toward a more permanent method of contraception, once family planning has been accepted. In 1974 we began to offer female sterilization performed by the paramedics, and found that a relatively large demand existed for this method. The sterilization are performed under local anaesthesia, both at sub-centres and the main centre. Paramedics, having been trained to perform these operations, have proven themselves to be quite skilled. The villagers prefer the female paramedic to the male physician, and it has been noted that the infection rate for the paramedics is lower than that of the doctors. The reason for this may be that the doctor is generally an occasional operator, and there is doubtless a tendency for him to assume the task of the more difficult cases for himself. The paramedic, too, may be more prone to pass over to the doctor what might promise to be a more complicated operation.

Figure 1: Role of "Dais" and paramedics in family planning programmes



Family planning tasks performed by doctors,paramedics and dais range from simple to complex. Doctor acts as team leader and trainer. Modification from Pupulation Reports, Series J. No.6, September 1975. Also see reference 33/

Comparative Infection Rate After Tubal Ligation

Centre	Operations by doctors		Operations by Paramedics		All operations	
	Total/Infected		Total/Infected		Total/Infected	
Savar	152	13-8.55%	395	19-4.81%	547	32-5.85%
Jamalpur	149	7-4.69%	1286	58-4.51%	1435	65-4.52%
Sherpur	151	6-3.90%	457	17-3.71%	608	23-3.71%
Sarishabari	13	1-7.69%	59	10-16.94%	72	11-15.27%
Sriberdi	9	1-11.11%	71	7-9.85%	80	8-10%
	474	28-5.90%	2268	111 4.87%	2742	139 5.06%

Menstrual regulation and abortion are offered at the clinic. More advanced stages of abortion are performed by the doctors. The government stand regarding the legality of abortion is somewhat ambiguous, thus there is still a hesitancy on the part of the villager to come forward. However, a good many do, as no government facility is provided for the operation. The numbers of women who are submitting to the village abortions is quite large, though it would be difficult to obtain exact figures. A survey conducted in Bangladesh in regard to attitudes towards legalization of abortion found that, with the exception of engineers, physicians were the most conservative in this regard. The group interviewed were among the more 'highly qualified and senior professionals', and 62 per cent of the physicians opposed the legalizing of abortion. Being far from the village reality, they cannot, or will not accept it.[32/]

Another reality

Health education alone can only go so far. You cannot teach about good nutrition (except for breast feeding) when food is not available. It is merely another form of inappropriate education. 'Why are you telling me do something, when, as good as it is, I know it is impossible?' Face to face with the village we came to realise more and more what is possible and what is not.

Nizam was 25 years old. He had been with the project as a paramedic since its inception, and when a paramedic subcentre was to be set up at Shimulia he was the one arranging the final details of the land. He knew the coming of the centre to Shimulia would threaten the fraudulent practices of a good many people, including illegal possession of government lands, smuggling, and selling health centre drugs. Among those involved in the illegal activities was the only qualified physician in the area, who was making a handsome profit by over-charging patients. Nizam did not realize just how great a threat the new centre was. In collaboration with local officials, i.e. the union chairman and a union member, the physician hired a group of thugs to have Nizam murdered, confident that he could make the necessary payments to the proper people, allowing him to continue his illegal work, along with his cohorts, and ensuring that the centre would not become a permanent fixture in Shimulia. Nizam lost his life, and now an almost incredible struggle for simple justice seems to be availing nothing. We have come face to face with the village. We have reached, it seems, our limit. Do we carry on with our small struggle or are we sustaining a system that would (and should) crumble - sooner without our gallant efforts. And even if we choose to work on, can Gonoshasthaya Kendra last in its present form? How viable can a body remain when it is alien to the system in which it operates? These are questions may be others can help us answer.

The UNICEF paper BASIC SERVICES FOR CHILDREN IN DEVELOPING COUNTRIES is an excellent piece of work. I was pleased to read it, but I was haunted throughout the reading by the paradoxes that I know will not let this plan come into being. The report stresses community involvement and an integrated approach, yet other UN agencies are simultaneously funneling money into a vertical approach to development and health problems. With World Bank and USAID funds going to support a sterilization programme which doles out money and sari incentives, how can an integrated programme be carried on through another UN agency?

UN funds and WHO advice are supporting the inauguration of four medical assistant training centres, all located in towns, and fully equipped to instruct graduates that will be ready to meet the needs of Dacca, Dubai, or London. At least 80 per cent of the students have had 12 years of schooling previously (the requirement for medical college admittance), and 98 per cent of the students are men. How can such a programme stress community involvement in the health care of its members? Until there is cooperation between the agencies - at least those of the UN - with agreement on the need for community involvement and an integrated health scheme, the paper, for all its apparent value will remain 'inoperative.' Furthermore, government officials and workers, both on the local and national levels, must be willing to implement the programme in an integrated fashion, involving the community, if the UNICEF idea is to be at all productive.

Land reform and other social measures of a deep and far-reaching effect must be in operation before the plan can be made viable. When upper middle class men and women represent Bangladesh at agency conferences they are not going to take a strong stand for social reform against their own vested interests. Rather they will warn against 'interfering with national soverignty', while the programme, or any other that might be effective, will remain on paper, an exercise in liberal expression, or at most it will reach Shimulia.

But the farmer continues,
only stopping a moment to shift the
bundle onto his young son's back.

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ANNEXURE I

Cost of Basic Services Delivery (Mainly Health and Family Planning) for the Bengali Year 1382 (April 1975-March 1976)

(provicional accounting)

Income Through Community Involvement	Taka
1. Health Insurance and clinic fees	112,067
2. Payment for Family Planning Services	10,440
3. Payment for Pathological services	7,346
4. Subscription for In-patient services	18,394
5. Payment for Operations	3,947
6. Local Donations and other miscellaneous income	15,553
	*167,747

*(44% of the expenditures)

Expenditures	Taka
1. Salary (51%)	181,699
a) Doctors 56,779(16%)	
b) Paramedics 73,743(21%)	
c) Office and other staff 32,027(9%)	
d) Other village workers 19,150(5%)	
2. Stationary and Printing (6%)	21,170
3. Transport including fuel and maintenance (5%)	20,281
4. Postage and telegram	1,064
5. Electricity and lighting fuel (2%)	6,403
6. Maintenance of equipment and miscellaneous expenditure (2%)	7,621
7. Drugs and reagents (34%) **	120,473
	358,711

**Cost of vaccines and family planning materials are not included in this amount.

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BASIC SERVICE DELIVERY IN "UNDERDEVELOPING COUNTRIES"

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