NGO Savings and Credit Scheme : Effectiveness in improving the Quality of Life of the Urban Poor in Different Poverty Levels in Dhaka

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Introduction

Urbanization and environmental degradation go side-by-side. The deteriorating environmental conditions of third world cities are threats to their economic growth. In most cities of the developing countries the financially less privileged urban residents (who are referred to as the 'urban poor' in this paper) must bear the human cost and the consequence of untreated waste, inadequate and contaminated water supply, air, noise and land pollution. The World Bank provided the urban development community with a set of basic objectives that included increasing urban productivity, alleviating urban poverty and improving the urban environment. Therefore, it is evident that the importance of these recent urban development concerns are getting world wide recognition and acceptance, especially in the context of the developing world.

Bangladesh is the eighth most populous country in the world with a population around 120 million in mid 1990s (Ahmed and Rouf, 1991). Poverty in Bangladesh is characterized by extreme conditions of low living standards, low productivity and widespread unemployment. The cities and towns of Bangladesh are over burdened with high pressure of population growth and the lack of job opportunities resulting in extreme poverty of the people. Bangladesh has one of the highest rates of growth of urban population at over 6 percent per annum over the last three decades compared to the national population growth rate of about 2.5 percent. The urban share of total population of Bangladesh was 20 percent in 1997, and 35 percent of the urban population is in the capital city, Dhaka (Begum, 1999).

The issues arising from rapid urbanization and uncontrolled growth of urban population results in lack of job opportunities, proper shelter and basic services. The problem is extremely severe in Dhaka. According to a study 60 percent of Dhaka's population were migrants (ESCAP, 1992). Most of these migrants end up in the slums and squatters of Dhaka. Urban poverty alleviation is the prime concern of all development organizations working to improve the lives of the urban poor. Various studies demonstrate that income generation is the key to poverty alleviation and that urban poverty can not be

reduced without substantial national economic growth. The improvement of housing and basic services of the urban poor follows the improvement of their livelihood (Islam and Khan, 1996).

The enormity of urban poverty incidence and its linkages with rural poverty are gaining recognition both by the government and the Non-Government Organizations (NGOs) of Bangladesh. The schemes that offer credit and savings services to micro-enterprises and poor communities, are thought to serve as a catalyst in this process of poverty alleviation. The development agencies are based on the concept that economic improvement through income generation is the first step to social security. The purpose behind all the development activities of the credit schemes of the NGOs is not only alleviating poverty from the financial point of view alone, but also from the point of view of physical aspects, such as– housing, basic utility services and health as well as other aspects, such as education, awareness and confidence building to make a substantial difference in the quality of life of the urban poor. But several questions remain unanswered. These are :

● How effective are these schemes in improving the lives of people at different poverty levels?

● Have the NGOs been able to reach the poorest among the poor through their savings and credit schemes?

● Are the schemes in operation in the urban areas of Bangladesh at all able to make a significant improvement in the quality of lives of the poorer members of the targeted urban poor?

This research paper is based on the above mentioned research questions. For measuring the effectiveness of NGO activities in this paper, certain indicators have been set for measuring the Quality of Life (QOL) of the urban poor.

Defining QOL

The term Quality of Life (QOL) is very broad in meaning and deals with various components and attributes. The definition varies from country to country, even within the country as well depending on the context and situation. Income is an important dimension of poverty, but it gives only a partial picture of the many ways human lives are affected. According to the Human Development Report (1997), poverty has many dimensions, among which two are human poverty (poverty of lives and opportunities) and income poverty.

The human poverty index (HPI) concentrates on the deprivation in three essential elements of human life already reflected in the HDI (Human Development Index)– longevity, knowledge and decent living. The first kind of deprivation relates to survival– vulnerability to death at a relatively early age that is measured in the percentage of people expected to die before 40. The second dimension relates to knowledge which is measured by the percentage of illiterate adults. The third is measured by the percentage of people with access to health services and to safe water, and percentage of malnourished children under five (UNDP, 1997).

The Vancouver Declaration on Human Settlements in 1976 and the Rio Summit in 1992 drew attention of the world community to the importance and improvement of the Quality of Human Life through increasing accessibility to basic services and improving their living and working conditions. Furthermore, the 1996 Istanbul Declaration on Human Settlements set up universal goals to ensure adequate shelter for all and to make settlements safer, healthier and more livable, equitable and productive.

The Ontario Social Development Council defined Quality of Life as "the product of interplay among social, health, economic and environmental conditions which affect human and social development". The City of Vancouver measures QOL using the following indicators: Community Affordability Measure, Quality of Employment Measure, Quality of Housing Measure, Community Health Measure, Community Social Infrastructure, Human Capital Measure, Community Stress Measure, Community Safety Measure, and Community Participation Measure (reported in the Web site of the City of Vancouver).

Based on the above studies, four main components have been selected as indicators of QOL for the purpose of this study.

Economic	:	Household income
	:	Household expenditure
Social	:	Housing
	:	Education
	:	Awareness
	:	Empowerment
Health & Hygiene	:	Illness
	:	Nutrition level
	:	Access to water
	:	Access to sanitation
	:	Health awareness
Environmental (Public Hygiene)	:	Solid waste disposal
	:	Drainage

This paper does not cover the environmental aspects or the public hygiene part of the research.

The Study Area and Research Method

For the research survey was conducted on two slum settlements named Duwaripara and Balurmath-Bastibari where one of the leading NGOs for the urban poor, Proshika, is working. The total population of the two settlements were 1,296 and 886 for Bastibari and Duwaripara respectively. A sample of 30 people were randomly selected from each settlement. Balurmath-Bastibari are actually two adjacent slums covering a large area; this whole area is considered as one settlement by Proshika. Therefore, the authors also considered these two slums as one. The land of this settlement actually belongs to the

government. The main objective of this paper is to analyze and assess the role of the credit and savings scheme of an NGO in improving the QOL of the urban poor of two different poverty levels. For achieving the objective it was required that the two settlements be under the same NGO for the same duration of time and that the residents be of two different economic levels. As a longitudinal survey was not possible, the paper is based on "Before" and "After" data for comparative study. The "After" data that was collected was the information or data on the existing condition of the members of the credit and savings schemes, on the basis of the QOL indicators. The "Before" data, on the other hand, was the data regarding the condition before they became members of the credit and savings scheme, based on the perception and memory of the people. Another small group of slum dwellers was surveyed who are not members of any NGO (control group, N=35). This was done to gather data on people who are not members of NGO schemes for comparison with the members of the scheme. This was also done to have a cross verification of the comparison between the "Before" and "After" situation.

Therefore, data was collected for two types of studies :
1. Comparative study between the control group and an experimental group.
2. Comparative study between the existing condition of the members of the scheme and the poor people's perception or memory of their condition before they became a member of the NGO (since no baseline survey was conducted).

The UPDP of Proshika
Proshika had launched its Urban Poor Development Program (UPDP) in 1990. The UPDP of Proshika has basically adopted its methodology from the rural programs. The program initially started as a two year pilot project with a set target to form 240 groups and to provide Human Development Training to 2,280 individual members. The two slum settlements chosen for the study Balurmath-Bastibari and Duwaripara are within the Mirpur area.

To find out the criteria for selection of members of the Savings and Credit Scheme and how they are planning to reach the poorest among the poor slum dwellers, several officials of Proshika were interviewed in April 2000. To describe their target group, the officials mentioned that the people who live in the slum and squatter settlements and sell their manual labor for survival, and female-headed households are their main target groups. They also mentioned that anyone who has a household income below Tk. 3,500 and especially those below Tk. 2,500 (hard core poor) are their target groups. The 1999 field survey showed no indication of such priority in selection of the members.

The basic operational procedure of Proshika is that after selecting a settlement for operation, Proshika identifies about 120 persons from each area who are willing to work for their fellow beings and have some leadership qualities. Although in the published brochures Proshika appears to have very rigid regulations for forming the groups with strictly targeted members, the field observation during the survey revealed otherwise. In practice, the selected persons actually form the groups according to their preference,

usually not following any of the stated criteria. It was observed from the survey that Proshika usually relies on the recommendation of the selected person and the other members of the group and community instead of a baseline survey for selecting their members.

Profile of the Slum Dwellers

Proshika gives membership and credit to both men and women, but the majority of the members are women, and the respondents of Proshika show that 90 percent of Proshika members were female. A major portion of the respondents was found to be owner-occupiers[1] of their dwelling units in both slum settlements. For Bastibari-Balurmath, 83.3 percent of the land was found to be government land and for Duwaripara, 46.6 percent of the land was disputed land, previously owned by the Nawab family of Dhaka.

The family size of the majority of both settlements was found to vary between 4 and 6 members. Duwaripara, being a poorer settlement, seems to have slightly higher percentages in the larger family size categories, about 20 percent of the families fall under the 7 to 9 member household category, while it is only 6.7 percent for Bastibari. For the category of 4 to 6 member households, Duwaripara has 66 percent while the control group 60 percent but it was 73.3 percent for Bastibari. 66 percent households in Duwaripara has 4 to 6 members while the figures for the control group and Bastibari are 60 percent and 73.3 percent respectively. The mean number of family members is 5.20 in Duwaripara, 5.10 in Bastibari and 5.15 for the control group. According to the Household Expenditure Survey (HES) 1995-96 (BBS, 1998), the national average household size was 5.26 and the average household size of urban areas was 5.30.

Occupationwise, a large proportion of the respondents was found to be involved in embroidery and tailoring related businesses. For Bastibari 30 percent of the respondents were involved in some embroidery or tailoring business and another 30 percent in some kind of small business ranging from *sari* selling, door to door hawking or managing a small portable store, popularly known as *mudidokan*.

Duwaripara on the other hand was observed to be a relatively poorer settlement compared to the other settlement and 53.3 percent of the respondents were housewives not involved in any income earning activities. The response in this settlement is quite similar to the response of the control group where 54.3 percent of the respondents were housewives. A good number of the household members of both settlements was found to be involved in the embroidery business and small business. It was found that about 48.7 percent of Bastibari-Balurmath and 52.3 percent of the population of Duwaripara cannot work, or are not yet in working age or are too old to work, i.e., "dependents".

Analysis of Target Group Selection

A conjoint analysis was done based on the information gathered during the interview to understand which criteria have been the most important for the officials during selecting its members. The results revealed that first of all income, secondly the dwelling tenure and thirdly the gender of the people are the main criteria for selecting members. People who

have higher income are preferred over lower income earners; also people who were owner occupiers of their shelters were preferred over those who rented a house or room in the slum as a renter is usually poorer than the owner. The slum dwellers believe the reason for such bias, is the risk that the poorer people may not be able to pay back their loans and may leave without repaying the loan.

Conjoint Analysis
All the factors are orthogonal.
Subfile Summary

Averaged

Importance	Utility	Factor	
		Gender	Gender
21.28	−1.7000	−	Male
	1.7000	−	Female
		Marital	Marital Status
8.40	−.5333	−	Single
	.2167	−	Married
	.3167	−	Widow/divorced
		Dwelling	Dwelling Tenure
31.37	-2.4500	−	Renter
	2.4500	−	Owner Occupier
		Income	Monthly Income
35.76	2.8000	−	below 2500
	5.6000	−	2500-4500
	8.4000	−	above 4500
	B = 2.8000		
		Duration	Duration of Stay
3.18	−.1000	−	More than one year
	−.2000	−	Less than one year
	B = −.1000		
	3.8833	Constant	

Pearson's R = .879   Significance = .0000
Kendall's tau = .733   Significance = .0000
Kendall's tau = 1.00 for 2 holdouts   Significance = .

The officials of Proshika did not want to admit that they were not allowing renters[2] to be their members purposefully, but they agreed that as they did not conduct baseline surveys before, this may have happened. A few officials mentioned that field workers prefer the economically better off slum dwellers over the economically less privileged ones. The reason explained by them was that the field workers were constantly under pressure to get 100 percent recovery of the loan they disburse. If they fail to do so, their performance

level goes down and it may cost them their promotion and if this continues it may eventually cost them their job. Due to this factor, field workers do not want to take any risk of low recovery rate. Therefore they select people who are most certainly capable to repay the loan. Hence people who are better off, in most cases they are the house owners, are selected and the renters are left out. According to the officials, females are preferred over males because women tend to be more reliable, dependable, easy to organize and control. Also, women tend to utilize the credit for the improvement of their families.

It is only very recently that Proshika recognized the need for a proper baseline survey to reach the target people and are preparing to conduct a survey before starting to operate in a new settlement.

The officials have identified the following main constraints for reaching the poorest among the poor:

1. Lack of knowledge, study and baseline survey and perception about urban poverty before actually implementing the project.
2. The government's constant threat of slum eviction.
3. Other bureaucratic policies that hinder the process of providing service to the poor. For example, while some NGOs want to provide water points for the slums and ask the Water and Sanitation Authority to distribute piped water, it is extremely difficult to get such requests approved by the high government officials and takes a very long time.
4. Proshika is unwilling to take any risk of not getting 100 percent recovery of loans. If Proshika allows a low percentage of default as small as 2 to 3 percent it would allow the field worker to relax and be more humane to the poor and select the poorer dwellers.

Socio-Economic impact of the Savings and Credit Scheme on the Settlements

Education
The number of years of school attendance is a good indicator of the education level of a settlement. Proshika provides a number of schools in each settlement not only for child education but also for adult literacy program and various other formal and informal training. Therefore in the two settlements Bastibari and Duwaripara about 35 percent and 48 percent of the respondents were found to be illiterate respectively compared to the control group figure of 68.6 percent. The survey data also show that 20 percent of the respondents of Bastibari have 6 to 8 years of schooling compared to 6.9 percent of Duwaripara and 5.7 percent for the control group. About 6.8 percent of the respondents of Bastibari were found to have 9 to 12 years of schooling while the percentage is zero for both Duwaripara and the control group. Even though they are providing the same schooling facilities and operating the same scheme in the two settlements that differ in income level, the effect or the outcome is very much different. The number of years of schooling for the household members of the respondents of both settlements indicate that Bastibari has slightly higher percentage in the higher number of years category. But for

the control group where the percentage in the 'No schooling' is as high as 32.6, it is only 10.3 percent and 14.7 percent for Bastibari and Duwaripara respectively. Here again Duwaripara shows higher percentage in 'No schooling' compared to the Bastibari settlement.

The slum-dwellers' perception about the extent of the NGO scheme facilitating their children's schooling has been tabulated in Table 1. It shows that NGO intervention that provides education does make a difference. But the NGO interventions that provide education is more effective in the settlement which is economically better off.

Table 1. Proshika Scheme Facilitating Children's Schooling: (Slum Dweller's Perception)

Response	Proshika	
	Bastibari (%)	**Duwaripara (%)**
Yes	76.9	54
No	23.1	46
Total	100	100
N	26	24

Source : Field survey, 1999.

Note : Although N is supposed to be 30 for each settlement, the N in the above table is less as there are some who respondents not have children of school going age, or the children are grown up and do not live with their parents any more.

Housing Condition
To assess the impact of the scheme on the housing conditions of the people, people were asked whether their housing condition has improved due to Proshika's development intervention. The majority of the people of both settlements believe that their housing has improved. For Bastibari the percentage of the category "Significantly Improved" and "Improved" is higher than that of Duwaripara. On the other hand, the percentage of the category "Deteriorated" is slightly higher for Duwaripara compared to Bastibari. Therefore, the impact of Proshika's development scheme has been more effective for Bastibari compared to Duwaripara.

Empowerment of the Respondents
The role of women members in household decision making and their control over their income have been taken as indicators of empowerment in this paper. It has been found that there has been an increase in the Weighted Mean Index (WMI) on the decision making aspects of the two settlements over the period.

As women of Bangladesh have very little say in household decisions, it has been adopted as an indicator in this paper. Table 2 shows that Bastibari changed by 0.39 units while in Duwaripara the difference is only 0.11. In Bastibari, almost all the members who have taken credit from Proshika have invested the money into some income generating activity or to expand the family business. Therefore, the change in the index between

"before" and "after" is greater. Unfortunately, for Duwaripara, the people are poorer and most of the borrowers are dependents (see Table 2). The credits taken are used for other consumption purposes and very seldom invested. Therefore it brings about very little change in the lives of the people and in the decision making aspects of the women.

The t-test results (Table 2) show that there has been a significant change or improvement in the household decision making aspects for the female members of both settlements, and the levels of significance are indicated.

Table 2. T-test of Equality of the Aggregated Weighted Mean of Decision-Making

Settlement	Mean of WMI (Calculated from WMI)		T-test for Equality of Means		
	Before Credit	After Credit	t	df	Sig. (2-tailed)
Bastibari	0.31	0.70	-6.267	27	0.000*
Duwaripara	0.39	0.50	-2.700	28	0.012*

Source : Field survey, 1999.

Note : The respondents were asked whether they take decisions on the following eight aspects and to what extent :

1. Buying HH items, 2. Buying HH assets, 3. Children's education, 4. Availing medical treatment, 5. Availing recreational facilities, 6. Using contraceptives, 7. Visiting parents/relatives, 8. Children's marriage. The WMI was set on a three-point scale as follows :

i. No – 0.0 (weight); ii. Yes – 1.0; iii. Jointly – 0.5.

Table 5 above shows figures calculated by adding up all the means of all the decision making aspects and dividing them by 8 to get the average of WMI of each settlement.

Most poor and uneducated women of Bangladesh, whether urban or rural, have limited rights and control over their income. Studies show that women given access to some government or non-government organization and a source of income, slowly gain confidence and control over their income. The results of this research show distinctly that the effectiveness of the NGO intervention has been less for the poorer settlement, Duwaripara.

The majority of the female respondents of both settlements have mentioned that they have full control over their income, the percentage is 85.2 percent for Bastibari and 63.2 percent for Duwaripara. Partial control over income reported for the two settlements are 11.1 percent and 36.8 percent respectively (Field survey, 1999).

Household Income and Expenditure
About 46 percent of the households of Duwaripara have a monthly household income between Tk.1,000 and Tk. 35,000 whereas the figure is only 27 percent for Bastibari and

40 percent had an income in the range of Tk. 3,501 to 6,000 for both settlements. Moreover, no respondent of Duwaripara was found with a monthly household income above Tk.10,000 while 10 percent in Bastibari had such income. The mean income of Duwaripara is higher than that of the control group by only Tk. 262. In other words, Duwaripara has higher percentage in the lower income category and it is just the opposite for Bastibari settlement. It must be mentioned here that the national average income per household is only Tk. 4,366 and the average for the urban area of Bangladesh is Tk. 7,973 according to the Household Expenditure Survey (HES) 1995-96 (BBS, 1998). Whereas the mean income is Tk. 6,612 for Bastibari, Tk. 4,076 for Duwaripara and Tk. 3,814 for the control group, this is much less than the national average for urban areas especially for Duwaripara.

The monthly household expenditure of Bastibari shows that more than 43 percent of the respondants spend between Tk. 3,500 and 4,500 and 36 percent of the respondents spend between Tk. 4,501 and Tk. 12,000, of which 17 percent is in the Tk.6,001-8,000 range. More than 6 percent of the respondents were found to have household expenditure more than Tk. 8,000 per month (Field survey, 1999). On the other hand, in Duwaripara, about 47 percent were found to spend between Tk.1,000 to 3,500 compared to 10.67 percent in Bastibari and 71.4 percent of the control group. It was found that the other 20 percent of Duwaripara spend between Tk. 3,500 and 4,500 which is quite similar to the control group figure of 14.3 percent (Field survey, 1999). Here again it is evident that a large percentage of the people of Duwaripara spend much less than the residents of Bastibari. The mean expenditure was found to be Tk. 4,705, Tk. 3,715 and Tk. 3,216 for Bastibari, Duwaripara and the control group respectively. According to the HES 1995-96, the national average monthly household expenditure was Tk. 4,096 and the expenditure in the urban areas was Tk. 7,274.

Change in Income Due to Savings and Credit Scheme of Proshika
The slum dwellers' opinion was taken as to whether there has been a change in their income due to the savings and credit schemes. The majority of the respondents of the two settlements think that there has been an increase in their income due to the savings and credit schemes. It was found that 86.5 percent of the respondents of Bastibari believe that there has been an increase in their income due to Proshika's scheme whereas 60 percent of the respondents of Duwaripara believe that there has been an improvement. On the other hand 26.7 percent of the respondents think that there has been no change in their income due to the scheme (Field survey, 1999).

In Duwaripara, 50 percent of the respondents' income has increased by Tk. 500 per month compared to 7 percent in Bastibari and 23 percent in Duwaripara claimed that their income has increased in the range of Tk. 501 to 1,000. Bastibari on the other hand show higher percentage of respondents in the higher ranges of increased income; 46.4 percent of the respondents of Bastibari claim an increase in income in the range of Tk. 1,501-3,000 per month compared to 10 percent respondents claiming the same in Duwaripara. The

mean of the estimated increased income per month for Bastibari is Tk. 2,029 compared to Tk. 1,283 for Duwaripara (Field survey, 1999, N=30).

The use of credit show that a considerable share of the loan money was used for consumption or non-productive purposes. Here activities or expenditure on dowry, house improvement, children's wedding and other occasions, repaying other loans and spending on other household matters are considered to be "consumption or non-productive" purpose. For Bastibari it adds up to 23.1 percent and for Duwaripara it adds up to 53.2 percent. The study also indicates that the members who are worse off economically tend to consume the loan money that they take as income generating loan, hence it does not increase the income of these people. Credit schemes targeting the poorest should take this point into serious consideration.

Impact of the Savings and Credit Scheme on Health, Nutrition and Hygiene

Health

For both the settlements the scenario of the health and illness pattern is quite similar but the condition is more severe in Duwaripara, as this settlement is economically much poorer and access to water is a big problem in the area. Therefore, the residents cannot lead a hygienic life even if they wish to, and due to their economic condition, the food they consume in many cases, is not fresh. This causes an increase in diarrhea and dysentery among the children of the settlement. Cold and fever was the most frequent disease observed here. Respiratory diseases including asthma and tuberculosis were observed among the garments workers and rickshaw pullers. Most of the members of this settlement did not get awareness building training on health, nutrition and hygiene.

Table 3. Type and Frequency of Diseases of HH

		Type of Diseases						
		Fever/ Cold/ Cough	Diarrhea/ Dysentery	Jaundice	Acidity/ Gastric/ Pep.ulcer	Asthma/TB/ Respiratory Problems	Skin Disease	Others
Before	Bastibari (%)	74.0	13.0	2.0	6.0	3.0	–	2.0
	Duwaripara (%)	68.0	15.0	4.0	7.0	3.0	1.0	2.0
After	Bastibari (%)	71.0	9.0	2.5	7.5	5.0	–	5.0
	Duwaripara (%)	66.0	13.0	3.0	6.0	6.0	2.0	4.0
	Control Group	69.3	13.8	3.5	5.4	3.5	2.5	2.0

Source : Field survey, 1999.

N=30 (per settlement, N=35 for control group)

Table 3 shows that the incidence of diseases appear to be very close between the two settlements, but the condition of Duwaripara is slightly worse. In both cases respondents mentioned that the health and illness pattern of their household has improved over the years although not significantly.

Nutrition

For calculating the calorie consumption, all the food items consumed per day per person have been converted to calories. As poverty lines of third world countries are drawn using calorie consumption, it would be easier to compare the with the national average and poverty line.

Table 4. Average Calorie Intake of Each Settlement (Before and After Taking Credit)

	Total K. Calorie (before)			Total K. Calorie (after)		
	Mean	**Maximum**	**Minimum**	**Mean**	**Maximum**	**Minimum**
Bastibari	1435	3911	517	1893	2942	384
Duwaripara	1939	3792	900	1878	2536	900
Control Group	–	–	–	1744	4328	742

Source : *Field survey, 1999.*

Note : For calculating the calorie per unit of food item, the standard is used from Rahman (1989).

It was found that there has been an improvement in the average calorie intake at Bastibari-Balurmath settlement by 458 k. calorie (Table 4). One reason could be that household members who were breast-fed babies had grown to become children. And children had grown to become young adults in the 'before' to 'after' period, therefore their food intake had increased with their age. This reason possibly has a major effect on the 'after' calorie intake. The second reason could be the improvement of the overall economic condition of the household due to the savings and credit scheme of the NGO, which allows them to spend more on food especially on those items that are higher in nutritional value. The third reason could be the improvement of the country's overall economic condition that automatically improves the calorie consumption of the people to some extent.

The scenario at Duwaripara was somewhat different where calorie intake 'after' was less than the calorie intake 'before' by 61 k. calorie. Although this is not a significant difference, the reason could be analyzed as follows: most of the respondents of Duwaripara (41 percent) have stated that the Savings and Credit scheme of Proshika was just 'helpful' and 28 percent (which is quite high compared to the other settlement) said 'not so helpful'. Therefore, the scheme was not very successful in improving the socio-economic condition of this settlement and the negative result could be the outcome of this. Inflation could be another reason as the prices of all food items had increased over the period but the income did not increase accordingly. It must be mentioned here that 70 percent of the respondents of this settlement have a monthly income less than Tk. 4,500, whereas at Bastibari– Balurmath 62 percent of the respondents have a monthly income above Tk. 4,500.

Personal Hygiene

Water usage is an important aspect of personal hygiene. For both study settlements, there has been an in increase in the consumption of water. In Bastibari-Balurmath, there has been a significant improvement. The reason is in Balurmath slum, Proshika provided water points for every 12 to 15 houses according to the need of the dwellers. This certainly increased water consumption. It was found that for Bastibari-Balurmath slum, water consumption increased from around 8 *kalshis* or 80 liters to an average of 130 liters and the distance travelled to fetch water reduced from around 455 meters to about 17 meters. Moreover, the number of households per water point (see Table 5) reduced from 235 to less than 20 households (Field survey, 1999). Compared with the control group, the water consumption is more and the distance travelled for water is less.

For Duwaripara, the overall situation has improved but not in a significant way in all the three aspects. For water consumption, there has been a slight improvement. In other words, the previous average water consumption per household for this settlement was 106.2 liters which has increased to 373.4 liters. There has been a significant reduction of the distance travelled to collect water; for example, it reduced from around 153 meters to less than 37 meters on average. It could be interpreted like this : as the squatter or slum landlords established a few water points along with the government, this reduced the distance residents have to travel to collect water (Field survey, 1999). But as the number is not sufficient to meet the demand, the price they pay is very high even for the government points. Some extortionists collect tolls for each bucket or *kalshi* of water taken and hours are spent in long queues. Therefore, the water consumption has not increased much. The number of households per water point has reduced from around 165 to around 70 (Table 5).

By simply looking at the weighted mean it is quite clear that there has been a significant improvement in the number of households per water point. The t-test results show that both the settlements have improved significantly and the levels of significance are indicated in Table 5.

Table 5. Number of Households per Water Point (Before and After Taking Credit)

Name of Settlement	Average no. of HH per Water Point		Weighted Mean		T-test for Equity of Means Settlement wise		
	Before Credit	After Credit	Before Credit	After Credit	t	df	Sig.(2-tailed)
Bastibari	235.28	19.45	0.23	0.018	3.718	24	0.001**
Duwaripara	165.30	69.76	0.16	0.069	2.627	26	0.014*
Control Grp.	–	75.91	–	0.075			

Source : Field survey, 1999.

Note : The weighted mean is calculated by this following formula :

$$W = \frac{X - Min}{Max - Min}$$

Where,

W=Weighted Mean

X=the variable

Min=the minimum value among "before" and "after"

Max=the maximum value among "before and "after"

Where the minimum value = 1 and max. value = 1000 households.

** Significant at 99 percent confidence interval

* Significant at 95 percent confidence interval

Toilet usage and the number of households sharing a toilet is also a good indicator of personal hygiene, hence quality of life of an individual. The general observation of the present condition of the study settlements is that most of the residents have their own toilet, either a sanitary latrine or a *kutcha* latrine or at most they share it with their landlords or renters whichever is the case.

Table 6. Number of Households per Toilet Before and After Taking Credit

Name of Settlement	Average no. of HH per Toilet		Weighted Mean		T-test for Equality of Means Settlement wise		
	Before	**After**	**Before**	**After**	**t**	**df**	**Sig.(2 tailed)**
Bastibari	17.08	5.00	0.35	0.08	3.349	23	0.003**
Duwaripara	12.46	5.25	0.02	0.03	-1.063	24	0.298
Control Grp.	–	11.03	–	0.20			

Source : Field survey, 1999.

Note : The same formula is used to calculate W (Weighted Mean) as Table 5.

Where the minimum value = 1 and maximum value = 50 hh.

** Significant at 99 percent confidence level

* Significant at 95 percent confidence level

The average number of households per toilet at each settlement shows that there has been some change, but not much for some settlements as the situation was not very bad for them at the beginning. Bastibari-Balurmath has changed from an average of 17 households per toilet to an average of 5 households. The t-test shows that there is a significant change at 99 percent confidence level. For Duwaripara, there seems to be a change from 12.46 households per toilet to 5.25 households. Although it is a big change or improvement of the situation the t-test shows that the change is not significant at the 95 percent confidence level.

Changes in QOL of Respondents Due to Credit (Slum Dwellers' Perception)

It was found that the majority believe that their quality of life has improved over the years due to the schemes (Table 7). For Duwaripara the share of the "improvement" category is over 50 percent and this settlement has a relatively high percentage in the "little improvement" category. Duwaripara being a poorer settlement has little improvement in all aspects discussed earlier in the paper, hence the response of the slum dwellers of Table 7 is quite reasonable.

Table 7. Slum Dwellers' Perception on the Changes in QOL due to Credit

Changes in QOL	Bastibari (%)	Duwaripara
Improvement A little improvement No improvement	80 13.3 6.7	53.3 26.7 20
Total	**100%**	**100%**

Source : Field survey, 1999.

The people believe that their life has improved over the years, but not as much as it should have improved, that is the reason for having a comparatively lower percentage under the 'improvement' category.

Conclusion

This research tried to measure the effectiveness of the savings and credit schemes of Proshika in two settlements that are of different economic levels. As both of the settlements were under Proshika for the same length of time of more than six years and located in the same area of Mirpur, it could be stated that all other surrounding conditions were more or less the same or constant for both the settlements.

Nearly 50 percent of the respondents of Duwaripara had an average household income in the Tk.1,000 to 3,500 range, while it was only 26 percent for Bastibari in the same range. The average family size for Duwaripara settlement was larger than Bastibari. In fact it is obvious that from the socio-economic, health, nutrition and hygiene points of view, the NGO scheme was very distinctively less effective for the settlement of lower economic level.

It was clear from the study that the officials of Proshika were not effectively reaching out to the poorest among the poor and have not recognized and acted upon it until very recently. They have just realized the need for a proper baseline survey before starting to implement the project scheme. The field workers in general preferred the economically better off people who also happened to be the owner-occupier of their dwelling unit, as the probability of recovering the loan money from them was higher.

A single scheme is definitely not expected to be effective for every situation and local condition, similarly it is not feasible to have a new set of rules and regulations for every settlement. It is evident from this study that the schemes of Proshika, like most NGOs

working in the urban areas of Bangladesh, are designed for the poor but not the poorest citizens of the urban areas, hence, the effectiveness of the schemes on them is also less. The results indicated that those who were slightly better off and had a small business from the beginning had done very well with the help of Proshika. On the other hand, those who were in a less privileged economic state tended to consume a major portion of the credit, instead of investing it and so, the effectiveness of the scheme was much less on this group. This shows the need for special designs of development schemes so that the poorest citizens of our society are reached and that they are effective enough to make a significant improvement of their Quality of Life.

Notes

1. Here owner-occupier means a person who is the owner of the material with which he/she has constructed the house and not necessarily the land on which it is built.
2. Renters are the people who rent their dwelling units in the slum.
3. *Kutcha* latrine is a toilet made of indigenous material like a wooden platform or a bamboo platform and the human excreta goes directly to the ground or a clay pit or sometimes in the nearby drain or water body. In other words, the toilet is made of temporary material without proper sewerage disposal system.

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