

## **Rural Micro Credit (RMC) and Poverty Alleviation: The Case of the PKSF in Bangladesh**

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*The problem of poverty is particularly severe in Bangladesh. To achieve the national development goals and especially to reduce poverty, the Government of Bangladesh has started to experiment with cooperative approaches involving the private sector and NGOs. Public Private Partnership (PPP) has been introduced as one of these novel approaches to poverty alleviation in Bangladesh. The Rural Micro Credit (RMC) program of the Palli Karma-Shahayak Foundation (PKSF) is one of important PPP initiatives in Bangladesh. Although, the RMC programs are being implemented from 1991 as a partnership program, it is yet to be evaluated. This research thus attempts to evaluate the effects of the RMC PPP for the first time. This paper reports the results of the RMC program from the survey of 68 RMC households from eighteen Unions of five Districts. The survey results show an insignificant improvement in income levels. It also found that just over half of the participants did not receive any Income Generating Activities (IGA) skills training, though it was a part of that program. The research also discovered dissatisfaction amongst beneficiaries about the rates of interest and most RMC participants believed that the rates of interest were very high and thus the rates should be reduced. However, the survey results reveal that the RMC is effective for improving food intake. The program also demonstrates noteworthy attainments in improving the rates of school enrolments of children and; also in health consciousness such as immunisation of children, and access to safe drinking water and hygienic sanitation.*

**Key Words:** Poverty alleviation, development, ultra-poor women, Rural Micro Credit (RMC), Public Private Partnership (PPP), and Bangladesh.

**Field of Research:** Microfinance, Poverty Alleviation and Development

### **1. Introduction**

Poverty has been identified as one of the world's biggest problems. The international community recognises that reducing global poverty is one of the major development challenges of the twenty-first century (World Bank 2000, p.1; World Bank 2001). It was estimated that in 2009, 1.8 billion people lived on less than US\$2 a day (UNESCAP- ADB-UNDP 2010, p. i); and in 2010, 1.4 billion people lived at or below the level of US\$1.25 per day (UNDP 2010).

The problem of poverty is particularly severe in Bangladesh. Bangladesh is one of the most densely populated countries in the world with an estimated 160 million people living in an

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## Khanom

area of 147,570 square kilometres. As estimated in 2010, child mortality rate of 52 per 1000 live births (UNDP 2012). The child malnutrition (for children under 5) was 48% (<http://www.worldbank.org.bd>) and the access to safe drinking water to an estimated 78% in 2010 (GoB 2011). The Human Development Index (HDI) ranked Bangladesh at 146 among 182 countries in 2011; and the population with income below US\$1.25 a day was at 49.6% and that falling below the national poverty line was 40% in 2005 (UNDP 2012).

The Government of Bangladesh sets out the country's broad national development agenda and strategic plans. It has a growing appreciation that contemporary development challenges are complex and require partnerships between government, the private sector and NGOs to make best use of limited resources. Flexibility is necessary to allow each partner to do what it does best. Public Private Partnerships (PPPs) are seen by the government as an innovative and effective approach to development in Bangladesh, and thus the Poverty Reduction Strategy Paper (PRSP) prepared by the Government of Bangladesh highlights the need for government-NGO collaboration through Public Private Partnerships (*Bangladesh Economic Review 2007*, p. 170-171). The Government of Bangladesh thus has introduced PPP as one of innovative approaches to poverty alleviation. The Rural Micro-credit (RMC) program of the PKSF is one of the PPP arrangements aimed at poverty alleviation. The attempt of alleviating poverty through the RMC PPP an innovative approach that is yet at an experimental stage in Bangladesh. It is thus important to evaluate whether and how far the RMC PPP is effective in alleviating poverty. This article consequently represents a contribution to addressing the effects of the Rural Micro Credit (RMC) partnership program of the PKSF aimed at poverty alleviation in Bangladesh for the first time.

The effects of the RMC of the PKSF in this research paper are organised in several sections. The first section depicts the literature on microfinance, its impacts on poverty alleviation and others development issues. The second section describes a short overview of the PKSF and RMC including the partnership structure of the RMC, implementation strategy and the expected outcomes of the RMC. The research methodology is described in the third section, following the findings and analysis of the results in the fourth section. The fifth section illustrates the discussions of the finding comparing with other literatures. Finally, a short conclusion is provided.

## 2. Literature on Microfinance, Poverty Alleviation and Development

Microfinance (more accurately microcredit, but in practice the terms are interchangeable) is the provision of tiny loans to the poor to help them establish or expand an income-generating activity, and thereby escape from poverty. The microfinance movement began with the work of Dr Muhammad Yunus by his own Grameen Bank in Bangladesh in the late 1970s, with the aims of reducing poverty, unemployment, and deprivation as well as improving basic health and education. Since then, the microfinance has been portrayed as a key policy intervention for poverty reduction and 'bottom-up' local economic and social development. Although the aims of microfinance are high, the impacts are mixed in reality as evident in different literatures.

# Khanom

## 2.1 Impacts on Poverty Reduction

There are a lot of studies done on the impact of microfinance on poverty alleviation, although the existing evidence on the impact of micro-credit on poverty is not clear-cut. There is a lot of works that suggest that access to credit has the potential to significantly reduce poverty (for example, Khandker 1998; Pitt & Khandker 1998; Khandker 2001; Zaman 2000). On the other hand, there are also some research findings which argue that micro-credit has minimal impact on poverty reduction (Morduch 1998; Karlan & Zinman 2009; Banerjee et al 2009).

Littlefield et al (2003) summarised some literatures on microfinance and cited the finding as of higher incomes among microfinance program participants than among non-participants. Goldberg (2005) found that most early impact evaluation studies reported a positive impact on poverty and income. Particularly, for Bangladesh, a widely cited study by Khandker (1998) on three major micro-finance institutions (MFIs) in Bangladesh – BRAC, Grameen Bank and RD-12 – found that up to 5% of participants were able to lift their families out of poverty every year by borrowing from one of these MFIs. The findings of follow-up survey done by Khandker in 1998/1999 reported that microfinance participants do better than non-participants in both 91/92 and 98/99 in per capita income, per capita expenditure, and household net worth (Khandker 2001). Khandker (2001) also noted that the programs have spill over effects on the local economy, but the impacts are very small (p. 13). Roodman and Morduch (2009) revisited the work done by Pitt and Khandker; and cited as the most robust evidence of impact of microfinance (Khandker 1998; Pitt and Khandker 1998).

The impacts of microfinance is not limited to reducing poverty only by the increased income; but also to reduce vulnerability of poor in several aspects. For example, Zaman (2000) examines the extent to which micro-credit reduces poverty and vulnerability through a case study of BRAC in Bangladesh. The main argument of Zaman (2000) was that micro-credit contributes to mitigating a number of factors that contribute to vulnerability as well as reduces income-poverty; such as by smoothing consumption, building assets, providing emergency assistance during natural disasters, and contributing to female empowerment. The evidence on reducing vulnerability is somewhat clearer. The provision of micro-credit has been also found to strengthen crisis coping mechanisms, diversify income-earning sources, build assets and improve the status of women (Hashemi et al 1996, Montgomery et al 1996, Morduch 1998, Husain et al 1998).

The positive impact of microfinance is also evident in some other Asian countries. A study of Remenyi & Benjamin (2000) conducted on several Asian countries found that the household income of families with access to credit is significantly higher than for comparable households without access to credit. For example, in Indonesia a 12.9 per cent annual average rise in income from borrowers was observed while only 3 per cent rise was reported from non-borrowers (control group). Remenyi & Benjamin (2000) further noted that, Sri-Lanka indicated a 15.6 per cent rise in income from borrowers and 9 per cent rise from non-borrowers. In the case of India, 46 per cent annual average rise in income was reported among borrowers with 24 per cent increase reported from non-borrowers; and the effects

## **Khanom**

were higher for those just below the poverty line while income improvement was lowest among the very poor (Remenyi & Benjamin 2000).

While the above mentioned studies revealed relatively positive effects of microfinance, an early set of studies collected by David Hulme and Paul Mosley (1996) reported diverse findings. The findings of those studies were stimulating as they found poor households do not benefit from microfinance; it is only non-poor borrowers (with incomes above poverty lines) who can do well with microfinance and enjoy sizable positive impacts.

Some others impact evaluations of different micro-finance programs also revealed mixed results like Hulme and Mosley (1996) suggested that microfinance had little or no impact. For example, Esther Duflo and his colleagues analysed 5,000 households in rural Morocco over two years. Their initial findings (reported in Straus, 2010) found the effect of microfinance on consumption to be negative and insignificant, with no impact on new business creation, education or women's empowerment. Similarly, Karlan and Zinman (2009) and Banerjee et al (2009) found almost no impact from a number of large-scale microfinance programs on poverty alleviation. Therefore, it is in fact not easy to decide about the exact impacts of microfinance on poverty alleviation.

### **2.2 Impact on Social Development**

The impact of microfinance on social development issues (e.g. health issues, primary school enrolment) is not that strong with diverse reports including both significant and insignificant effects. For example, Pitt and Rozenweig (1985) observed from Indonesian data that an increase in the consumption of fish, fruit, or vegetables by 10 percent reduces the chances of illness there by 9, 3 and 6 percent respectively among the microfinance borrowers. Similarly, Daley-Harris (2002, 2007) - advocates of microfinance cites impressive social progress as impacts of microfinance e.g. reduced infant and maternal mortality, and increased school enrolment ratios, especially of females in Bangladesh.

However, the development achievements cannot be attributed to microfinance only. For example, Andhra Pradesh in India has performed much better than the rest of India in terms of social indicators of development. As noted by Dasgupta (1995: 247), at low levels of nutrition and health care, increase in current consumption improves future labour productivity: if nothing else, morbidity is reduced, although microfinance does not seem to have played a big role there either. Moreover, the MIT study by Banerjee et al (2009) found no impact of microfinance on measures of health, education, or women's decision-making among the slum dwellers in the city of Hyderabad, India. Similarly, the study by Dean and Zinman (2009), which measured the probability of being below the poverty line and the quality of food that people ate, found no discernible effects of micro credit program. The above discussion indicates the mixed impacts of microcredit on social development.

### **2.3 Microfinance and Entrepreneurial Skills**

The microfinance programs provide credits to the poor with the expectations that the borrowers would utilise the loans for self-employed entrepreneurial activities and would

## Khanom

increase their incomes. Thus, the poor should have entrepreneurial skills to be self-employed. However, the reality is that most poor people do not have any entrepreneurial skills. This in fact this have been obvious in several studies. For example, findings of the Hulme and Mosley (1996) studies suggest that credit is only one factor in the generation of income or output. There are other complementary factors, crucial for making credit more productive. Among them, the most important is recipient's entrepreneurial skills. The findings of the MIT study by Banerjee et al (2009) point out that most poor people do not have the basic education or experience to understand and manage even low-level business activities. They are mostly risk-averse, often fearful of losing whatever little they have, and struggling to survive. This does not mean that they do not want to better themselves (e.g., as suggested by the so-called backward bending labour supply curve). Similarly, Karnani (2007: 37) summarizes that most people do not have the skills, vision, creativity, and persistence to be entrepreneurial.

According to Mahajan (2005), a social entrepreneur and chairman of BASIX, "Microcredit is a necessary but not a sufficient condition for micro-enterprise promotion. Other inputs are required, such as identification of livelihood opportunities, selection and motivation of the micro-entrepreneurs, business and technical training, establishing of market linkages for inputs and outputs, common infrastructure and sometimes regulatory approvals. In the absence of these, micro-credit by itself, works only for a limited familiar set of activities – small farming, livestock rearing and petty trading, and even those where market linkages are in place." From the above discussion it is obvious that Entrepreneurial Skill is one essential factor to make the microfinance successful.

### 2.4 Microfinance and Interest Rates

A key claim for microfinance was that it would help to detach the poor from local loan sharks charging higher interest rates – a claim made by Muhammad Yunus when promoting microfinance to international donors. In fact, by conferring social legitimacy upon microfinance, rather than loan sharks, the stage was set for the poor to become open to the idea of going into debt. The interest rates charged by the MFIs are lower than the rates charged by informal creditors (e.g. money lenders/employers/landlords). While MFIs charge lower interest rates than local loan sharks, they are still seen as imposing high rates on poor clients. In the early days, many MFIs said this was necessary to cover the high operational costs of providing tiny loans to the poor, but that interest rates would fall through competition. This argument had some validity initially. However, interest rates have not fallen as much as predicted, and in some countries (notably Mexico) have remained very high. In part, this is because of the emphasis on the commercial model, with MFIs now required to generate high financial rewards for their managers (salaries, bonuses) and owners/shareholders (dividends and capital gains).

Growing dependency upon microcredit, coupled with high interest rates, means that a growing proportion of the unstable income of the poor is siphoned off to cover interest charges. As Srinivasan (2010) suggests, this is the dynamic behind the current microfinance crisis in Andhra Pradesh, India. Microfinance can also encourage further engagement with the local loan shark. In Andhra Pradesh, for example, the poorest households have

## Khanom

increased their engagement with local loan sharks to pay off microloans they obtained all too easily from their local MFIs which also increase the risk of debts (Ghokale 2009).

In the case of *Compartamos* in Mexico, the personal rewards have run to tens of millions of dollars for key managers, while the interest rates for its mainly poor women clients have remained very high, with an Annual Percentage Rates (APR) of 129% in 2008 (Waterfield 2008). The fear is that significant financial flows are flowing out of the poorest communities, rather than being retained and recycled within them to underpin productive investment as the precursor to an escape from poverty. Moreover, nowadays, unsustainable microcredit indebtedness is commonplace across developing countries; for example, in Bangladesh and India (Banking with the Poor 2009); and in Peru (Kevany 2010); and also in transition countries, notably in the Balkans (Bateman 2011) and especially in Bosnia and Herzegovina (Cain 2010). Apparently, the rates of interest of microcredit are not convenient yet for all.

### **3. Rural Micro-Credit (RMC): Public- Private Partnership (PPP) Program of the PKSf**

#### **3.1 Overview of the PKSf and the RMC**

The *Palli Karma-Shahayak Foundation* (PKSF), which in English means ‘Rural Employment Support Foundation’, since its inception in May 1990, has been working as an apex micro funding and capacity-building organisation for eradicating poverty in Bangladesh. It provides micro-credit to the poor through its Partner Organisations (POs). PKSf’s vision is to alleviate poverty and improve the quality of life of the poor—the landless and assetless—by providing them with resources and enhanced capacity-building for employment and the improvement of their economic conditions. The RMC was the first partnership program of the PKSf after its inception in 1991. PKSf operates its RMC programs through its POs. The number of POs increased to 257 in 2009 from 121 in 2005 (PKSF 2005, 2010). In FY2009, PKSf disbursed loans amounting to Tk.7.55 billion to its POs under RMC, an increase of 22% compared to FY2008 (PKSF 2010).

#### **3.2 Partnership Structures of the RMC of the PKSf**

The RMC is a partnership program between the Government of Bangladesh, the PKSf and NGOs. A Memorandum of Understanding (MoU) is the legal basis between the Finance Division (FD) of Ministry of Finance (MoF) of the Government of Bangladesh for operating the RMC programs. Legally, PKSf is a ‘company limited by guarantee’ and is a ‘not for profit’ company registered under the Companies Act of 1913/1994 with the Registrar of Joint Stock Companies in Bangladesh (PKSF 2010).

The PKSf receives funds from the government of Bangladesh, as well as from other donors through the Government of Bangladesh such as the World Bank, USAID, the ADB and the International Fund for Agricultural Development (IFAD) (PKSF 2010). The PKSf levies a 4.5% service charge per year from its POs. Loans received by the POs from the PKSf are repayable within three years. The first six months are considered a grace period and loans, along with service charges, are then to be repaid in 10 quarterly instalments within the

## Khanom

remaining 30 months. The POs (NGOs) disburse the first loan to the beneficiaries for one to two years. The first two months are considered a grace period and repayment of the loans is over the following 10 months. The POs charge interest on money loaned to their beneficiaries depending on the field situation of the POs. Normally POs collect 12.5% interest as the service charge from the beneficiaries. However, this varies from 12.5% to 15% from PO to PO. The repayment period for the borrowers is one year. After repayment of the initial loan an individual beneficiary can receive another loan; thus, an individual beneficiary can revolve the loans for as many years as she wishes.

### **3.3 Management and Implementation of the RMC program of the PKSf**

The Government of Bangladesh provides finance to the PKSf under a MoU and monitors RMCs through PKSf reports on the RMC activities. In the RMC PPP, the PKSf is responsible for several activities, including the selection of POs, disbursement of credit to POs, helping POs to build capacity and monitoring the field activities of the POs. The PKSf is also responsible for monitoring of financial activities of POs on behalf of the government of Bangladesh.

As the PKSf implements the RMC through various POs, selecting the appropriate PO is one of its crucial tasks. In appraising an organisation, PKSf follows guidelines divided into (a) organisation, (b) organiser, (c) management, (d) human resources, (e) working area, (f) field activities, (g) past performance, (h) management information system (MIS) and (i) accounting system (PKSf 2010). According to the guidelines, to become a PO of the PKSf an organisation should have certain features. It should have a legal basis. For an NGO, it is to be registered with the appropriate authority such as the Directorate of Social Welfare, Department of Women's Affairs, Registrar of Cooperatives, or NGO Affairs Bureau. The organisation should have a constitution, a general body and an executive committee approved by the concerned registration authority. The organisation also should have a mandate from the registered authority to operate credit program for self-employment and income-generation activities for the landless and assetless with an admissible service charge. It should be able to borrow money from the government and from semi-government, private and other organisations. The organisation should have at least 400 group members; at least five members in each group, a Tk.0.2 million operating loan at field level, and experience of at least six months' successful micro-credit operation. The groups should be organised within a 10 km radius of the NGO project office (PKSf 2010).

The working area of the organisation should be well suited to microcredit operations. It should have a good communications network, banking facilities and easy access to market so that the borrowers can utilise their loan profitably. The rural areas and the areas, especially those with a relatively high incidence of poverty, are given preference. There should be potential for expansion of the program, while avoiding duplication with the activities of other development organisations working in the same area.

# Khanom

## 3.4 Field Implementation of the RMC

The POs of the PKSf are the main implementing agents of the RMC PPP. The POs provide loans to the beneficiaries after selecting who can be borrowers in a particular area. All the beneficiaries are provided social awareness training on such matters as on legal rights and health issues. The POs encourage beneficiaries to make regular weekly savings. The POs provide training to the beneficiaries under different projects so that not all beneficiaries are provided with all types of IGA skills training. Exactly what they receive depends on their preferences. An individual beneficiary can receive one or two courses of IGA skills training according to her choice. The POs monitor the activities of the beneficiaries. They also collect weekly instalments and services charges and look after the savings of the beneficiaries.

The POs apply a set of criteria in selecting the beneficiaries:

1. The beneficiaries should be landless and assetless.
2. The beneficiaries should be residing in rural areas owning less than 0.5 acres of cultivable land, or having total assets of the value less than that of one acre of land in the locality.
3. The landless and assetless should be organised into groups of not less than five members.
4. All members of a group must be residents of the same village or area.
5. Groups must be formed with like-minded people from the same socio-economic stratum and be people having confidence and trust in each other.
6. Members should be conscious of, and adhere to, group discipline and be regular in attendance at group meeting and in making saving deposits (PKSF 2010).

## 3.5 Expected Outcomes of the RMC of the PKSf

Through the RMC, it was expected that the participants would be able to improve their human and social wellbeing through social awareness training. The participating households would be able to improve their food and nutritional level by using knowledge gained through social awareness and increased income through IGA skills training sessions, especially with training relating to matters such as kitchen gardening and poultry rearing. Participants would be able to enhance their economic conditions through utilising IGA skills training and the loans of the NGOs. Finally, the beneficiaries' households would be able to come out of poverty through regular earning utilising the credit of the NGOs (PKSF 2010).

## 4. Methodology and Data Collection

### 4.1 The Survey

The purpose of the survey was to explore the extent of the effects of the RMC program on the sample RMC households on economic and social development after involvement in 2007. The survey particularly examined whether participants had graduated out of poverty



## **Khanom**

by improving their level of income through utilising the loans provided by the NGOs; and whether they had any improvement human development and health awareness.

The survey questionnaire thus included several questions on the economic and social wellbeing of the participating households addressing such matters the average monthly income and per-capita daily income for the FY2007-08 and FY2008-09; expenditure on food, changes in food intake for the FY2007-08 and FY2008-09; IGA skills training, loan-receiving behaviour, and the attitude and views of the RMC households about the interest rates of the loans. Other questions covered school enrolment of participants' children, and health issues such as the immunisation status of their children, sources of safe drinking water and sanitation conditions.

The survey questionnaire was developed on the basis of the expected outcomes of the RMC PPP program which were found in the documents of the PKSf. Some questions were included from the report of the Household Income and Expenditure Survey 2005 questionnaire of the Government of Bangladesh (HIES 2005).

To explore the effects of the RMC program of the PKSf on poverty alleviation five out of 64 districts and eighteen unions from these five districts were selected randomly. From these eighteen unions, 68 women-headed households were selected randomly for the survey. The selected households were involved in the RMC program for more than two years. It was believed that the findings would reflect the changes in development status of the sample households at least for two years after the involvement. However, the research considers this small number of sample as a limitation since the RMC is the largest loan program of the PKSf with involvement of thousands of borrowers. The survey data were collected from February to December 2009 and processed using SPSS software.

## **5. Findings and Result Analysis**

This section analyses the findings and results that were revealed through survey of 68 RMC sample households. The aim of the RMC partnership program was to bring sustainable development to the lives of the poor women-headed households by increasing income and earnings. The survey investigated the development status of the sample RMC households, including their social and economic welfare and health consciousness both before and after involvement in the RMC program. The survey particularly looked at income and expenditure patterns, IGA skills training, expenditure on food and changes in food intake, loan receiving behaviour, views on the interest rates of the loans, school enrolment, and the health issues e.g. immunisation and access to safe drinking water and sanitation conditions of the sample RMC households.

### **5.1 Effects of Micro-credit on Monthly Average Income and Daily Per-capita Income**

To evaluate the effects of the microcredit on poverty alleviation through economic development, the research investigated the monthly average income and daily per-capita income among the sample RMC households. The survey compared the average monthly

## Khanom

income of the sample RMC households in the FY2007–08 and FY2008–09. An improvement was found in most cases. Table 1 shows a comparison of average monthly income in FY2007–08 and FY2008–09 among the sample RMC households. The largest proportion (30.6%) of the sample households with an average monthly income between Tk.5,001 and Tk.7,000 did not have any change between FY2007–08 and FY2008–09. There was a slight increase in the percentage of households in the higher income levels such as Tk.7,001 to Tk.10,000; Tk.15,001 to Tk.20,000 and more than TK.20,000.

**Table 1 : Monthly average income of the sample RMC households in FY2007–08 and FY2008–09**

Amount in Taka	FY2007–08 (Percentage of Households)	FY2008–09 (Percentage of Households)
<b>Less than Tk.5,000</b>	27.4	19.3
<b>Tk.5,001 to 7,000</b>	30.6	30.6
<b>Tk.7,001 to 10,000</b>	17.7	22.6
<b>Tk.10,001 to 15,000</b>	17.7	16.1
<b>Tk.15,001 to 20,000</b>	4.8	6.5
<b>More than Tk.20,000</b>	1.6	4.8

It was found that the percentage of households with an average monthly income between Tk.7,001 and Tk.10,000 increased from 17.7% in FY2007–08 to 22.6% in FY2008–09, the percentage of households with an average monthly income between Tk.15,001 and Tk.20,000 increased from 4.8% in FY2007–08 to 6.5% in FY2008–09 and the percentage with an average monthly income more than Tk.20,000 increased to 4.8% in FY2008–09 from 1.6% in FY2007–08. However, the percentage of households with an average monthly income less than Tk.5,000 decreased in 19.3% in FY2008–09 from 27.4% in FY2007–08 and the percentage of households with an average monthly income between Tk.10,001 and Tk.15,000 decreased in 16.1% in FY2008–09 from 17.7% in FY2007–08.

The survey investigated daily per-capita income of the sample RMC households in US dollar to compare their level of income with the international poverty line, which was set US\$1 a day until 2008. The survey found that the majority of the households had a per-capita income of less than US\$1 a day in both financial years (see Table 2). It was found that  $(29+51.7) = 80.7\%$  of the sample RMC households had a per-capita income less than US\$0.96 in FY2007–08, and  $(27.4+ 37.1) = 64.5\%$  of them had a per-capita income less than US\$0.97 in FY2008–09. These findings indicated that the majority of the sample RMC households had a per-capita income below the international poverty line (US\$1 a day) in FY2007–08 and FY2008–09.

## Khanom

**Table 2: Per-capita daily income in US\$ in FY2007–08 and FY2008–09**

Amount in Taka (Monthly Income)	FY2007–08		FY2008–09	
	Per-capita daily income in US\$ in FY2007–08 <sup>i</sup>	Percentages of Households	Per-capita daily income in US\$ in FY2008–09 <sup>ii</sup>	Percentage of Households
<b>Less than Tk.1000</b>	\$ 0.48	29	\$ 0.49	27.4
<b>Tk.1,001 to Tk.2,000</b>	\$ 0.48–0.96	51.7	\$ 0.49–0.97	37.1
<b>Tk.2,001 to Tk.3,000</b>	\$ 0.96–1.43	8	\$ 0.97–1.46	16.1
<b>More than Tk.3000</b>	More than \$ 1.43	11.3	More than \$ 1.46	19.4

The survey also found that 8% of the sample households had a per-capita income of between US\$0.96 and US\$1.43 a day, and 11.3% had a per-capita income more than US\$1.43 a day in FY2007–08. It was also revealed that 16.1% had a per-capita income between US\$0.97 and US\$1.46 a day and only 19.4% households had a per-capita income more than US\$1.46 a day in FY2008–09. These also indicate that a minority (11.3%) had income above the international poverty line in FY 2007-08 and that was also found to be increasing (19.4%) in FY 2008-09.

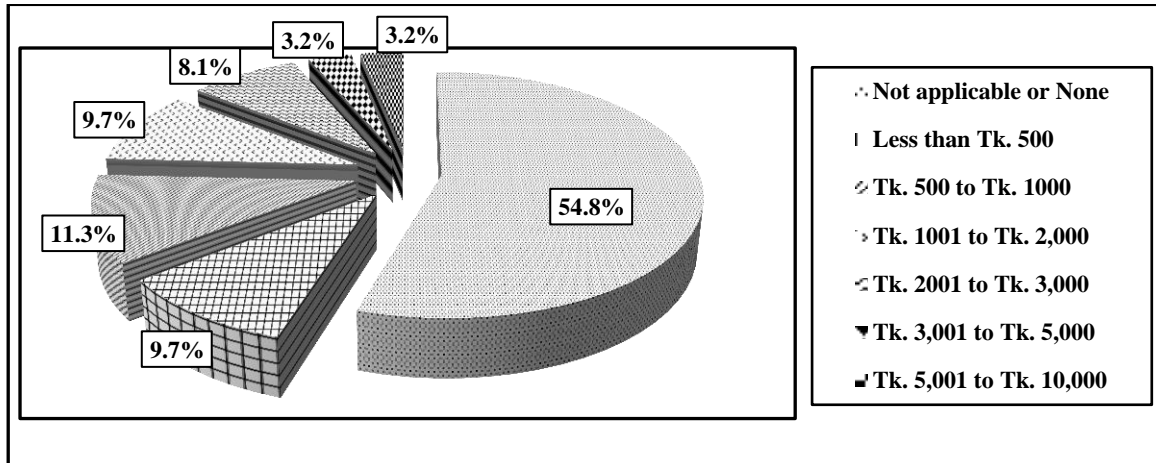
### 5.2 Effects of IGA Skills Training

The RMC program was designed to provide loans to its participants. It also provided some IGA skills training, although this was not compulsory. The survey asked the sample RMC beneficiaries whether they had received any IGA skills training and of what types. It was found that most participants (54.8%) did not receive any IGA skills training, while 24.2% received training on goat/cow rearing and 8.1% received training on poultry raising. 12.9% of the sample beneficiaries received two kinds of training, among them 4.8% received training on both vegetable gardening and goat/cow rearing and 8.1% received training on both poultry raising and goat/cow rearing.

The survey investigated monthly income utilising IGA skills training of the sample RMC households in FY2008–09. It was found that over the half (54.8%) of the sample households derived no income from those activities, since they did not receive any skills training, while another 45.2% earned different amounts of money, between Tk.500 and Tk.10,000 per month, from different activities utilising IGA skills training (see Figure 1).

## Khanom

**Figure 1: Monthly income utilising IGA skills training of the sample RMC households in FY2008–09**



It was also revealed that 9.7% of the sample RMC households earned less than Tk.500 per month, 11.3% earned between Tk.500 and Tk.1,000 per month, 9.7% earned between Tk.1,001 and Tk.2,000 per month, 8.1% earned between Tk.2,001 and Tk.3,000 per month, 3.2 % earned between Tk.3,001 and Tk.5,000 per month utilising the IGA skill training. The higher amount was earned by only 3.2% of sample households, that was between Tk.5,001 and Tk.10,000 per month utilising the IGA skill training.

### 5.3 Effects of Micro-credit on Food Security: Food Expenditure and Changes in Food Intake

The research investigated the amount of food expenditure and changes in food intake among the RMC households to assess the impact of the RMC program on food security. The survey investigated the average monthly food expenditure of the sample RMC households for FY2007–08 and FY2008–09 (see Table 3). The survey results reveal an increase in the percentage of households, with two higher categories of food expenditures in FY2008–09 compared to FY2007–08.

**Table 3: Monthly food expenditure of the sample RMC households in FY2008–09 and FY2007–08**

Average Monthly Food Expenditure in FY2007–08		Average Monthly Food Expenditure in FY2008–09	
Amount in Taka	Percentages of Households	Amount in Taka	Percentages of Households
Less than Tk.4,000	42	Less than Tk.4,000	31.6
Tk.4,001 to Tk.8,000	50	Tk.4,001 to Tk.8,000	58.8
Tk.8,001 to Tk.12,000	6.4	Tk.8,001 to Tk.12,000	8.0
More than Tk.12,000	1.6	More than Tk.12,000	1.6

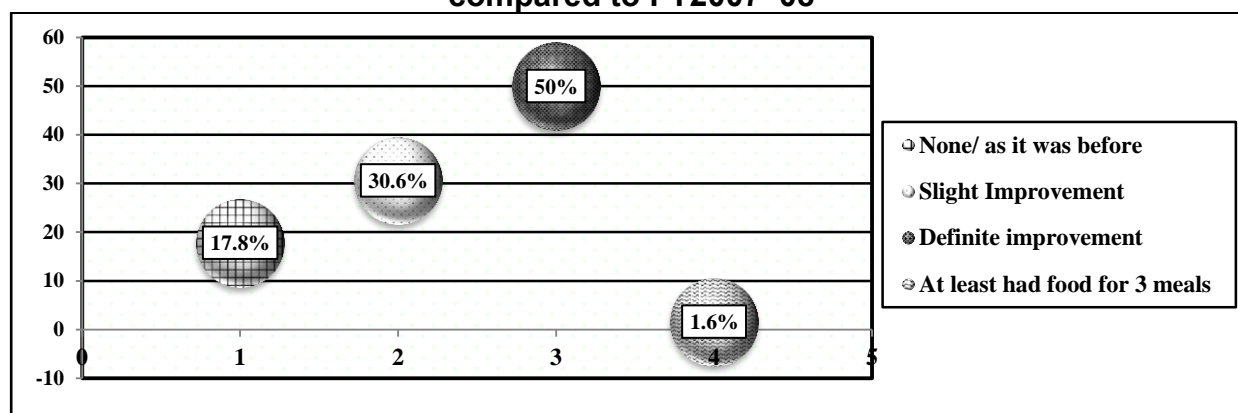
It was found that half the sample household had an average monthly food expenditure of between Tk.4,000 and Tk.8,000 in FY2007–08. The proportion of households in this

## Khanom

category increased to 58.8% in FY2008–09 from 50% in FY2007–08. Further, there was a small increase in the proportion of households in the Tk.8,001 and Tk.12,000 category of food expenditure, from 6.4% in FY2007–08 to 8% in FY2008–09. The proportion of households with average food expenditure of less than Tk.4,000 decreased from 42% in FY2007–08 to 31.6% in FY2008–09. Only 1.6% of the sample households had food expenditure higher than Tk.12,000 in both financial years.

The survey also investigated the changes in food intake among the sample RMC households. The results show an improvement for the majority (82.2%) of the sample RMC households in food intake in FY2008–09, as compared to FY2007–08 (see Figure 2). While 17.8% of households saw no changes in their food intake, 30.6% of households reported a slight improvement and 50.0% of households reported a definite improvement in their food intake.

**Figure 2: Changes in food intake among the sample RMC households in FY2008–09 compared to FY2007–08**



The survey also found that 1.6% of the sample households did not have enough food for three meals a day before, but they could have three meals every day after being involved with the RMC.

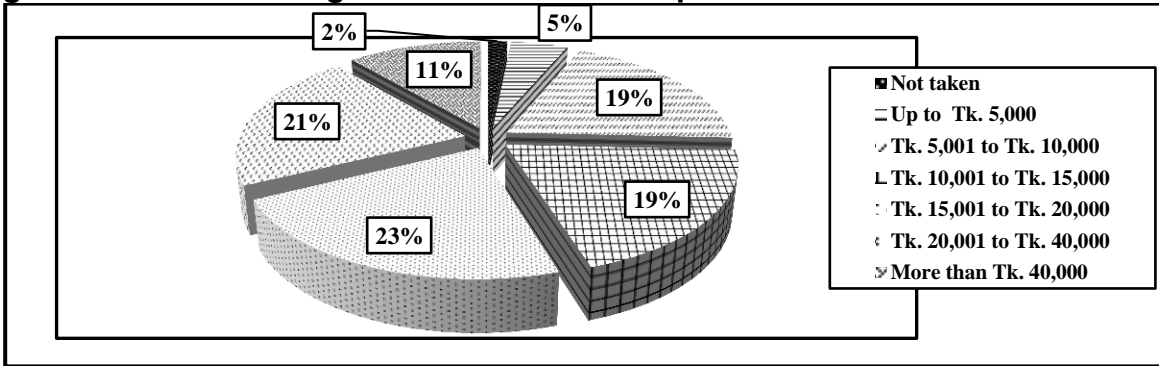
### 5.4 Effects of Micro-credit on Loans: Loan-receiving Behaviour and View on Interest Rates among the participants

The RMC was designed to provide loans in different amounts to poor rural women through different partner NGOs (POs) of the PKSf as a means of increasing the income of rural poor women-headed families. To assess the effects of the loans on development, the research investigated the loan receiving behaviour and the view on interest rates of the loans among the sample RMC participants. Figure 3 shows the loan-receiving behaviour of the sample RMC households in FY2008–09.

The RMC PPP was designed mainly to provide loans in different amounts to participants for investment in income-earning activities. The research found, virtually all (98%) RMC beneficiaries received loans and 63% received loans from Tk.15,000 to Tk.40,000; 19% received loans of more than Tk.40,000 (see Figure 3).

## Khanom

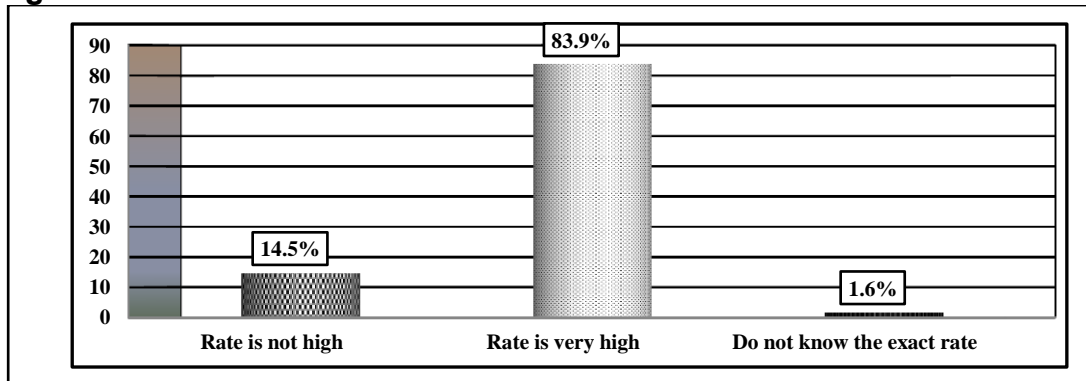
**Figure 3: Loan-receiving behaviour of the sample RMC households in FY2008–09**



The survey also found that the amount of loans received by the beneficiaries varied from person to person. Most (63%) of the RMC participants received loans between Tk.15,001 to more than Tk.40,000. Of the sample beneficiaries, 23% received loans from Tk.15,001 to Tk.20,000, 21% received loans from Tk.20,001 to Tk.40,000 and 11% received loans of more than Tk.40,000. Smaller loans were taken by several beneficiaries, with 19% receiving loans from Tk.5,001 to Tk.10,000 and 5% receiving loans below Tk.5,000. However, 2% of the sample beneficiaries did not receive any loans from the NGOs.

For those in the RMC program, the NGOs imposed a fixed rate of interest on loans. The rates varied from 12.5% to 15.0%, according to which NGO was involved with the RMC. The RMC households were asked whether they considered the interest rate to be very high through the survey. Three different views (see Figure 4) were offered. The largest group of participants (83.9%) believed that the rates of interest were very high, while only 14.5% believed that the rates of interest were not very high. Of the sample beneficiaries, 1.6% did not know the exact rate of interest of the NGO loans.

**Figure 4: RMC Beneficiaries' views on the interest rates of the NGO loans**



The survey also asked the sample RMC beneficiaries what should be done about the rates of interest. Three different opinions were identified. The overwhelming majority of the participants (96.2%) believed that the rate should be reduced, while 3.2% thought that the interest rates should remain as they were. However, 1.6% of the sample beneficiaries did not provide any answers, as they had not received any loans from NGOs.

## Khanom

### 5.5 Effects of Micro-credit on Human and Health Development

To investigate the improvement in social awareness and health development, the survey considered issues such as school enrolment and health matters including immunisation of the children, sources of drinking water and sanitation conditions of the sample RMC households. The results were intended to reveal information on whether the sample RMC beneficiaries were enjoying welfare gains in these fields.

#### 5.5.1 School Enrolment and Immunisation

The survey found that the children of 96.0% of the eligible households (since some households had no school-age children) were regularly going to school in 2009, compared to 94.2% in 2008. It was also found that 98.4% of the sample households' children were immunised in FY2008–09, compared to 98.3% in FY2007–08. Table 4 shows the details of school enrolment in 2008 and 2009 and immunisation conditions of the eligible children in FY2007–08 and FY2008–09 of the sample RMC households.

**Table 4: School enrolment in 2008 and 2009 and immunisation conditions in FY2008–09 and FY2007–08 of the sample RMC households' children**

Level	School Enrolment (Percentage of Children for Eligible Households )		Immunisation Conditions (Percentage of Children for Eligible Households )	
	2008	2009	FY2007–08	FY2008–09
No	5.8	3.8	1.7	1.6
Yes	94.2	96.2	98.3	98.4

Although the difference between the two years was not great, it indicates a satisfactory development in health consciousness, at least in part, since it was believed by the stakeholders of the RMC PPP to be an effect of the social awareness training provided by the NGOs in the RMC program.

#### 5.5.2 Access to Safe Drinking Water and Sanitation Conditions

The survey results also reveal that 100% of the sample RMC households had access to safe drinking water in FY2008–09, compared to 95% in FY2007–09 (see Table 5).

**Table 5: Access of RMC sample households to safe drinking water in FY2007–08 and FY2008–09**

Level of Access	Percentage of Households in FY2007–08	Percentage of Households in FY2008–09
Yes	95	100
No	5	0

It was also the case that 94% of the sample RMC households used hygienic toilets in FY2008–09 compared to 87% in FY2007–08.

## Khanom

### 6. Discussion

This section discusses the findings of the research comparing with other research reports and literatures to assess whether and how far the RMC partnership program of the PKSf was effective in alleviating poverty in Bangladesh.

One of the expected outcomes of the RMC program was that the participants would be able to improve their economic conditions through utilisation of skills training and loans from the NGOs (PKSF 2005, 2010). As shown in the Table 1 the research discovered a slight improvement in the average monthly income for the RMC households, although there was no change in the size of the largest income group (30.6%) between FY2008–09 and FY2007–08. About 70% of the RMC households had a monthly income greater than the average national rural per household monthly income, which was Tk.6095 in 2005 (HIES 2005). This indicated a better income position for 70% of the sample RMC households compared to the average rural households in Bangladesh which is also supported by previous studies (for example, Chowdhury et al 2005, Khandker 1998; Pitt & Khandker 1998; Khandker 2001; Zaman 2000; Goldberg 2005).

As can be seen in Table 2, the research found that although the percentage of households for per-capita income increased in some categories but the proportion was insignificant. The research also revealed that most households had per-capita income of less than US\$1 a day in both financial years, as 80.7 % of the sample RMC households had a per-capita daily income of less than US\$0.96 in FY2008–09 and 64.5% had a per-capita daily income less than US\$0.97 in FY2008–09. The findings indicated that although RMC led to some improvement in income, the effect was only minor. Other research has found similar insignificant effects of rural micro-credit in Bangladesh (for example, Morduch 1998, 1999; Karlan & Zinman 2009) and also in some developing countries. For example, the ADB (2007) identified only a mildly significant (significance level 10%) impact of micro-credit on monthly income and per-capita income on rural households in Philippines. Several studies reported that microfinance either has very few impact or no impact on poverty reduction and higher income (e.g. Remenyi & Benjamin 2000; Morduch 1998; Banerjee et al 2009; Hulme & Mosley 1996).

As mentioned earlier, part of the RMC program was to provide loans to its participants. However, it also provided some IGA skills training to its participants, although such training was not compulsory (PKSF 2005, 2010). The research found that just over half of the participants (54.8%) did not receive any IGA skills training (see Figure 1) and thus could not get income from IGA skills training. Almost half received different types of IGA skills training and earned different amounts of money between Tk.500 and Tk.10,000 per month from activities using those skills. The findings indicate that the RMC PPP was effective for 45.2% of the sample participants in providing IG skills training that was used to increase their incomes (see Figure 1). One of several important issues is that the loan recipient's should have some entrepreneurial skills to utilise their loan. The findings of the MIT study by Banerjee et al (2009) also point out that most poor people do not have the basic experience to understand and manage even low level business activities and thus to increase their income. This research revealed the same issues that hinders the loan borrowers' income as



## Khanom

54.8% participants did not receive any skills training and thus they did not make any extra income.

One of the expected outcomes of the RMC program was that the RMC households would be able to improve their food and nutritional level by using knowledge gained through social awareness training and increasing income. The research showed that the average food expenditure increased for most sample RMC households in FY2008–09 compared to FY2007–08. Moreover, there was higher expenditure on food for at least 68.4% of households in FY2008–09 (see Table 3), than the national average monthly food expenditure of the rural households, which was Tk.3,023 in 2005 (HIES 2005). Moreover, several studies revealed some positive impact of microfinance on food intake. For example Pitt and Rozenweig (1985) found that increased better food intake (vegetable, fish etc.) among the microfinance participants in Indonesia. However, the higher expenditure did not indicate the quality of the food or nutrition levels of the food. The food expenditure might increase due to the higher prices of foods, since the food price was comparatively higher in FY2008–09 than the previous years (GoB/UNDP 2009).

As demonstrated in Figure 2, although this research indicated improvements in food intake, the previous research on RMC program found different results. For example, Ahmad (2007) from an in-depth survey of the RMC beneficiaries of three NGOs, namely Grameen Bank, BRAC and the Association of Social Advancement (ASA), recorded that 39.7% respondents were unsure about the improvement in food intake, while 52.4% respondents said that they failed to improve the quality of their food intake due to weekly loan repayment requirements. However, the food security patterns of the RMC PPPs recorded during the research period indicated that the RMC PPPs were effective for improving food intake.

Previous studies revealed that the amount of loans, incomes and savings are interrelated (Coleman 2006). This research discovered the similar findings. It found that the higher amount of loans had influences on the monthly incomes of the beneficiaries. For example, the beneficiaries (58%) who received loans between Tk. 15,001 to Tk. 40,000, (see Figure 3); among them 27.4% had higher monthly incomes of between Tk. 10,001 to more than Tk. 20,000 (see Table 1), compare to the rest (42%) of the sample households who received smaller amount of loans, between less than Tk. 5000 to Tk. 10,000.

The research discovered dissatisfaction amongst beneficiaries about the rates of interest of the NGOs loan money. In the RMC PPPs, the NGOs imposed set rates of interest on their loans. The survey revealed the most RMC participants (83.9%) believed that the rates of interest were very high (see Figure 4) and an overwhelming majority (96.2 %) thought that the rates should be reduced. The high interest rates of NGOs micro-credit programs were noticed in several studies as well (for example, Khalily 2006) and thus suggested for a standardised lower rates by the founder of the Grameen Bank Professor Yunus himself (Yunus 2010), although it is yet to be changed.

The research found that 96.0% of eligible households' children were enrolled in and going regularly to school in 2009 compared to 94.2% in 2008 (as shown in Table 4). The rate of school enrolment was higher than the national rate for both sexes of 91.9% in 2008 (GoB

## Khanom

2009). Although the improvement between two years (2008 and 2009) was small, the high enrolment rate revealed strong awareness of the importance of schooling among the RMC households. Also discovered was the fact that 98.4% of the sample RMC households' children were fully immunised in FY2008–09 compared to 98.3% in FY2007–08 (see Table 4). The rates of immunisation were thus very high in both years (2008 and 2009), and higher than the latest survey on national rates of immunisation, which showed that 82% of Bangladeshi children aged 12–23 months were fully immunised during 2002 to 2006 (GoB/UNDP 2009)<sup>iii</sup>.

The research also discovered that 100% of the sample RMC households had access to safe drinking water in FY2008–09 compared to 95% in FY2007–08 (see Table 5). These rates were higher than the latest national rates for rural areas of 84% in 2007 and the national rate for all Bangladesh, which was 86% in 2007 (GoB/UNDP 2009). The research found that 94% of the sample RMC households used hygienic toilets in 2008 compared to 87% in 2007. The rates of access to hygienic toilets were higher than the national rate for rural areas in 2007, which was 86% (GoB/UNDP 2009). These findings clearly indicate a good development of schooling and health consciousness among the sample RMC households as one of the effects the RMC program of the PKSf. In addition, most RMC households who were involved for more than two years (some of them were for more than ten years), were already aware of the benefits of schooling, immunisation, safe drinking water and sanitation. The positive impact of microfinance on social issues is also supported by Daley-Harris (2007). He confirms impressive social progress (e.g. reduced infant and maternal mortality and increased school enrolment ratios, especially of females) in Bangladesh. However, it is different in India. For example, Banerjee et al (2009) found no impact on measures of health and education among the slum dwellers in the city of Hyderabad, India.

Though the findings seem to confirm the positive effects of the RMC program on human and social development, the improvement in social awareness might not be due to the single effect of the RMC program of the PKSf. They might also derive from government campaigns (Ahmed 2007). Thus, although the above findings indicated improvement, some other factors may have influenced the positive outcomes of human and social development.

## 7. Conclusion

The problem of poverty is particularly severe in Bangladesh. Public Private Partnerships (PPPs) have been introduced as a novel approach to poverty alleviation in Bangladesh. The Rural Micro Credit (RMC) program is one of the important PPP arrangements in Bangladesh. The aims of the RMC partnership program is to bring sustainable development to the lives of poor women headed households in Bangladesh by different inputs, such as access to the credit programs of NGOs, social awareness trainings and income generating activities. The expected outcomes of this program were to improve income, nutritional status and food intake, and enhance human, social and health development. This article has explored the effects of the RMC program from the survey of 68 RMC households from eighteen unions of five districts in Bangladesh who were involved with the RMC for more than two years to ten years. Although it is very hard to generalise the results due to the

## Khanom

small sample size of this research, it would provide a clear picture of the effectiveness of the RMC PPP program on poverty alleviation and development of the rural poor in Bangladesh.

The survey results have revealed differential success in achieving the RMC program goals. The RMC was effective for improving food intake and demonstrated remarkable achievements in improving the rates of school enrolments and immunisation of children, access to safe drinking water and using hygienic sanitations. Although almost all (98%) of the RMC participants received loans from the NGOs, and the majority (75.8%) of sample households had different amount of saving; the findings have also revealed insignificant improvement in income levels by sample RMC households. This is obvious from the figures of the per-capita daily income, since most RMC households had per-capita daily income less than US\$ 1 in both financial years (FY 2007-08 and FY2009-10). Thus, it could be say that the RMC program had insignificant effects in improving economic conditions and lifting the majority of the RMC households from poverty; which may raise questions about the extent of effectiveness of RMC PPP in reducing poverty.

The findings have indicated several possible reasons that hindered the expected economic development outcomes from the RMC partnership program of the PKSF. Firstly, most (54.8%) RMC households did not receive any IGA skills training and thus they were failed to add any extra income earnings utilising the IGA skills trainings. Moreover, almost all (98%) of the RMC participants received loans from the NGOs and the majority (75.8%) of sample households had insignificant amount of savings.

Finally, this research discovered severe dissatisfaction about the rates of interest of loan amongst RMC beneficiaries while the overwhelming majority (96.2 %) of the sample households thought the interest rates should be reduced. The high rates of interest discourage the beneficiaries in receiving loans and eventually affect their income and earnings. Thus, in line with other scholars (for example, Khalily 2006 & Chowdhury et al 2005) and development practitioners (for example, Yunus 2010), this research suggests for a reduced rate of interest for the RMC beneficiaries in Bangladesh for their economic development and thus to reduce poverty.

The findings of this research remind the words of Professor Yunus (2003, p. 171), “Micro-credit is not a miracle cure that can eliminate poverty in one fell swoop. But it can end poverty for many and reduce its severity for others. Combined with other innovative programs that unleash people’s potential, micro-credit is an essential tool in our search for a poverty-free world”. As a matter of fact, most promoters of microfinance do not wholly disagree that microfinance alone cannot do the job. For example, Sam Daley-Harris, Director of the Microcredit Summit Campaign, writes, “Microfinance is not the solution to global poverty, but neither is health, or education, or economic growth. There is no one single solution to global poverty. The solution must include a broad array of empowering interventions and microfinance, when targeted to the very poor and effectively run, is one powerful tool” (Daley-Harris 2007, P. 1).

## Endnotes

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<sup>i</sup> The exchange rate in July 2007 was US\$1 = 69.86 taka; Source: ([www.worldbank.org.bd/bds](http://www.worldbank.org.bd/bds))

<sup>ii</sup> The exchange rate in July 2008 was US\$1 = 68.575 taka; Source: ([www.worldbank.org.bd/bds](http://www.worldbank.org.bd/bds))

<sup>iii</sup> Data is not available for fully immunised children after 2006 in Bangladesh; however, data were available for individual diseases such as tuberculosis and measles. For example, 99% of 1 year old children were immunised against TB in 2008 (GoB 2009, UNICEF 2011).

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