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Poverty Alleviation and Long-Term Sustainability of Microfinance Project: With Special Reference to Matale District

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Abstract

This research is attempted to assess the strengths of poverty alleviation initiatives taken by foreign donors in Sri Lanka. Hence research basically studied the Matale Regional Economic Advancement Project (MREAP) which was funded by the International fund for Agricultural Development (IFAD). Study was based on both primary and the secondary data. Primary data were collected through interviews held with project officers, beneficiaries and other government officers who were involved with various activities in project villages. Descriptive analysis, , double difference method, and the regression analysis were the analytical tools used in data analysis. According to the results of the double difference analysis and the descriptive analysis microfinance facility provided by the MREAP has influenced significantly on income levels of the beneficiaries. In general, microfinance has influenced positively on poverty alleviation of beneficiaries. According to the beneficiaries MREAP was a successful project as it provided microfinance for the appropriate businesses during the project implementation period but, neither MREAP nor other government organization have monitored the sustainability of project activities. Analysis of the project reveals that Microfinance is one of the effective tools in poverty alleviation in Sri Lanka and, it is very essential to provide a healthy macroeconomic environment avoiding unnecessary political intervention for the microfinance projects to function effectively and efficiently. This information reveals that monitoring of long term sustainability of the activities initiated during the project period after the termination of the project is a vital fact that due attention of relevant authorities should be received.

Key words: Microfinance, Poverty, MREAP

1. Introduction

Being a small country in the Asian region Sri Lanka is still struggling hard to find out the correct mechanism to achieve the development targets mentioned in the policy agenda of the present government which is named as the “*Mahinda Chinthana*”. According to that, Sri Lanka expected to be the miracle of the Asia in terms of economic development. Paying due attention to all aspects of economic development is a vital thing in order to achieve that policy goal.

One of the major problems that the county is facing today is poverty. According to the Household Income and Expenditure Survey- 2006/07 conducted by Department of Census and Statistics 2009 (DCS), Sri Lanka’s Poverty Headcount Ratio (PHR), urban PHR, rural PHR and estate PHR were 15.2%, 6.7%, 15.7% and 32% respectively. Household income and expenditure survey conducted by the Department of Census and Statistics (2011) in 2009/10 specifies that the national level poverty head count index in Sri Lanka was 8.9% while the corresponding values of the urban, rural and estate sectors were 5.3%,9.4% and 11.4% respectively. When results of these two surveys were compared it is evident that there is a statistically significant reduction in poverty in Sri Lanka. But yet a significant number of people are facing many problems due to poverty.

However, when the share of income to total household income in different categories is examined it is very clear that Sri Lanka is experiencing a huge income disparity. In addition to that, during the 2009/2010 survey period the poorest 20% of the populations in Sri Lanka had received only 4.5% of the total income while the richest 20% had enjoyed around 54.1% of the total income of the county. This clearly specifies the income disparity that was prevailing between the poor and the rich categories of the population.

In Sri Lanka, different kinds of organizations have involved in poverty alleviation initiatives. Not only the government organizations but also a number of Non Government Organizations (NGOs) are also participating actively in this process. Despite the numerous efforts devoted by various bodies to alleviate poverty in Sri Lanka poverty is yet one of the major problems.

Though the microfinance is a major component in such programs whether those microfinance programs have really contributed to poverty alleviation is an important question to be answered. Every day new families do start their livelihood as new households and a part of them would fail to cross the poverty line. At the same time, some of the existing households get their livelihood improved crossing the poverty line successfully. While another group of households that walked out of the poverty trap return to the pool of poor people on a future day. For an example, children of poor families who started their livelihood as separate households amidst of financial difficulties could enter in to the poverty cycle on a future day. Though it is the reality, the level of attention paid to this phenomenon is insufficient. Not only that, but also some families that are not poor at present may become poor in future due to various reasons.

Even though this is the reality, most of the microfinance programs have developed targeting the people who are already in poverty without paying attention to develop a mechanism to prevent rich people becoming poor. When all above facts were boiled down, it is clear that poverty is a dynamic concept rather than a static concept.

World development indicators of 2011 indicated that despite the significant efforts taken by the countries in the Asian and Pacific regions to reduce poverty, roughly one quarter of the people in the Asian and Pacific regions are struggling with poverty.

2. Literature Review

The most developed continent in the world relating to the microfinance activities is the Asian continent where we are living. This is based on the volume of MFI activities. (Lapeneu and Zeller 2001, Bedson, 2009). The way it was evolved and its tremendous development that occurred in the Asian region were recognized by the practitioners’ all over the world through awarding of the Nobel peace award to professor Mohammad Yunus. Social, political and geographical coverage reflects the diversity of the microfinance industry in Asia (Bedson, 2009). Peoples Republic of China, India, Bangladesh, Sri Lanka and Pakistan are some of the countries which are actively engaged in microfinance activities. Not only that but also all other countries in the South Asia have reaped

impressive benefits from microfinance related activities. It means that despite the social, political or any other difference, microfinance is equally important to the whole Asia.

Even though discussions on microfinance activities in Sri Lanka are highly debatable yet, its origin dates back to more than 100 years. According to the Microfinance Industry's Report (2009) the establishment of the Thrift and Credit Co-operative Societies (TCCS) were done in 1906 under the Co-operative Societies Ordinance and that was the corner stone of this evolution. At present microfinance sector in Sri Lanka received considerable attention from government organizations, commercial banks, and non government organizations as well. Despite the proud microfinance history of more than 100 years, the growth of the microfinance industry in Sri Lanka was constrained due to the absence of required regulatory and supervisory systems.

Microfinance has identified as an effective tool for poverty alleviation. But in real sense it basically serves the moderate poor and non poor category. The Poorest group does not receive any direct benefit out of this due to various reasons such as lack of skills, lack of technical knowhow and marketability of products and if they request for loan it is slowly for the consumption purposes (Thilakarathne 2005). Even though microfinance commenced as an effective tool in poverty alleviation, at present it is questionable whether it really in line with the founders expectation (Mark &Khandker 1998, Thilakarathne 2005, Kondo et al 2008).

Discussing about the Sri Lankan context, Colombage (2004) conducted research to identify the opportunities and constraints of microfinance as the poverty alleviation tool. According to his findings in Sri Lanka poor people not ready to take any risk there for they just continue their traditional business or the agricultural activities. Government needs provide the healthy macroeconomic conditions for microfinance activities within the country. Specially, price stability is must for the effective and efficient utilization of the microfinance (Colombage 2004).

Microfinance was more successful in its initial stage since at the outset, consideration of micro finance was mainly serving the poor to climb the income ladder and even at presents taking various forms microfinance serves the economy. As Madheswaran and Dharmadhikary 2001 identified viability of non- farm economic activities, earning profit that would cover the interest rate of the loan and the marketing of products produced by the micro entrepreneurs as major problems associated with micro finance.

3. Methodology

3.1. Identification of the Research Problem

History of microfinance runs back to 16th and 17th centuries and its evolution has occurred in an informal way (Seible & Dieter 2005) and, most of the researchers have recognized Bangladesh as the birth place of microfinance basically due to the massive contribution made by Professor Muhammad Yunus. The establishment of Grameen Bank in Bangladesh became a famous activity as it paid a significant attention to poverty reduction and women empowerment. This effort was recognized by awarding the Nobel Peace prize to Prof.MuhammadYunus in 2006. (Meyer &Nagarajan 2006).

Even origin in Bangladesh dates back to more than 100 years and despite a large numbers of microfinance institutions (MFI) are working there Azad et al (2004) stated that poverty level has not reduced significantly.

During the long journey of microfinance in Sri Lanka massive numbers of microfinance programs have been launched targeting the rural population. Government organizations and local and international Non-Government Organizations (NGOs) have contributed significantly to the development of microfinance activities in Sri Lanka. Some of the microfinance programs were continued over long periods with different modifications. For an example the "Samurdhi" program was started as the "Janasaviya" program and still continues to support the needy people of the country.

Also, there is another category of microfinance programs which operates during a predetermined period. These projects terminate once the specified project period was over. Matale Regional Economic Advancement Project (MREAP) funded by the International Fund for Agricultural Development (IFAD) and the Participatory Rural Development Project (PRDP) implemented in Anuradhapura district under the financial assistance of the Asian Development Bank (ADB) are some examples for this category of development projects. Usually such projects have conducted ongoing

monitoring studies while the project was implementing and terminal evaluation studies after the completion of the project. Results of monitoring and evaluation studies conducted were impressive as the project implementation was done under the strict supervision of a special team of individuals known as the project staff. But real impact of those foreign funded projects need to assess since it assure the effective utilization of the funds and at the same time it is very much essential to understand the impact of healthy macroeconomic condition for effectiveness of those foreign funded projects. Therefore research problem of this study is to

- Assess the impact of microfinance on poverty alleviation in Matale district and identify the influence of macroeconomic condition on the net impact of microfinance.

3.2. Objectives of the Study

Based on the above identified research problem, objective of this study is to,

- Identify the impact of MREAP microfinance project on poverty alleviation in Matale District.

3.3. Sample Selection

Various researches have evaluated the impact of microfinance efforts. In general, as stated by Kondo et al (2008), the problem associated with this kind of evaluation is the selection of suitable counterfactual against which the treatment group is compared and according to them gold standard in impact evaluation is a randomized experiment. In this process treatment and the control groups are randomly selected.

Another most frequently used technique for research is quasi experiment method and if a researcher wanted to use the quasi experiment method that study should satisfy the following requirements. (1) availability of treated and untreated groups: (2) there must be a pretreatment and post treatment measure: (3) there must be an explicit model that project over time the difference between the treated and untreated group, given no treatment effect (Kenny, 1975), Quasi experimentation method compares the outcomes of an intervention with a simulation of what the outcome would have been, had there been no intervention Hulme (2000). Table 01 presents the common impact assessment methods used by various researches.

When sample survey method was used researcher should collect the quantifiable data from a representative sample. Using questionnaires data should be gathered about predetermined indicators from the respondents of both groups before and after the project intervention. Quantitative information collected from the treatment group can be compared with the relevant data collected from the control group.

Next commonly used impact assessment method is the rapid appraisal method. This method basically occupied through the use of focus group discussions, semi structured interviews with key informants, case studies, participant observations and the use of secondary data. Participant observation is basically done through qualitative techniques and mini scale samples.

Case study is the detailed analysis of a focus group. Since it is detailed analysis open ended questions are frequently used. Participatory learning and action is the method that is to be completed with the participation of intended beneficiaries. This method helps to acquainted with the opinions of the beneficiaries.

When selecting the best fitted impact assessment method following things should receive a due attention. (a) objectives of the assessment, (b) way of information use and whom it use, (c) required level of reliability, (d) complexity of the program, and (e) the availability of resources. Hulme (2000)

Table-01. Common impact assessment data collection methods

| Method | Key features |
|-----------------------------------|--|
| Sample Surveys | Collect quantifiable data through questionnaires. Usually a random sample and a matched control group are used to measure predetermined indicators before and after intervention |
| Rapid appraisal | A range of tools and techniques developed originally as rapid rural appraisal (RRA).It involves the use of focus groups, semi structured interview with key informants, case studies, participant observation and secondary sources |
| Participant observation | Extended residence in a program community by field researchers using qualitative techniques and mini scale sample surveys |
| Case studies | Detailed studies of a specific unit (a group, locality, organization) involving open-ended questioning and the preparation of “histories” |
| Participatory learning and action | The preparation, by the intended beneficiaries of a program, of timelines, impact flow charts, village and resource maps ,well-being and wealth ranking, seasonal diagrams, problem ranking and institutional assessments through group processes assisted by a facilitator. |

Source: Hulme (2000)

A careful study of the method of impact assessment showed in Table 01 and their strength and weaknesses will help to select the best alternative to be used. Further, cost and time consideration of methodology selection says that it is feasible to select a mix of sample survey and the rapid appraisal as the best alternative for the study. Consideration on budget availability is also of paramount importance. The importance of budget consideration was stated by Hulme (2000) as follows.

“The design of an IA must be very closely related to the budget available: this may be a platitude but over ambitious designs continue to lead to poor quality studies or delays that make findings irrelevant”.

Therefore this study basically use both sample survey and rapid appraisal methods for the purpose of conducting impact analysis.

As majority of the researches have targeted on evaluation of activities of micro finance institutions or the financial institutions, there is a vacuum of research focused on long term effects of various micro finance projects. Hence, this research will fill this gap up to a certain extent. Therefore focus of this study is to evaluative long term impacts of a microfinance project funded by an international donor.

This research used both primary and secondary data and DID based on those second data and the sample size for DID was 1,114.

Sampling was done in two major steps. During the first step one project was selected purposively among from various projects funded by the different international donors. During this step Matala Regional Economic Advancement Project was selected because it is a project completed five years ago and this is the appropriate time to assess the long term sustainability of project interventions.

During the second stage of sampling households were selected. For this purpose project area was divided into different groups based on the DS Divisions and then a random sample of 100 beneficiaries was selected using the loan register maintained by the project as the sample frame.

The Difference in Difference (DID or the Double Difference) is a quasi experimental technique which is the most commonly used one by researchers to measure the impacts of some treatments. This method represents the difference between the pre and post conditions of the subject of the treatment and control groups.

If a researcher wanted to use this method for the analysis it is essential to differentiate clearly the main two groups; the group affected by the policy change or the given specific treatment and the group which is not being affected due the above said policy change or the specific treatment.

According to the World Bank (2012) there are three main strategies' to estimate impacts using the DID method. The box method, the graphical representation, and using a regression analysis.

So use of the double difference method could be explained with the treatment group and the control group of this study. According to this study treatment group is the households who received the microfinance facilities while control group is the group where who did not receive the microfinance facilities. Therefore it is necessary to identify the net impact of microfinance on mean household income.

Table-02. Difference in Difference analysis using box method

| | Group affected by the Microfinance project(treatment group) | Group that was not directly affected by the microfinance project(comparison group) |
|---------------------------------|--|---|
| After the Microfinance Program | $Y_1(u_i) D_i=1$ | $Y_1(u_i) D_i=0$ |
| Before the Microfinance Program | $Y_0(u_i) D_i=1$ | $Y_0(u_i) D_i=0$ |
| Difference | $(Y_1 D=1)-(Y_0 D=1)$ | $(Y_1 D=0)-(Y_0 D=0)$ |

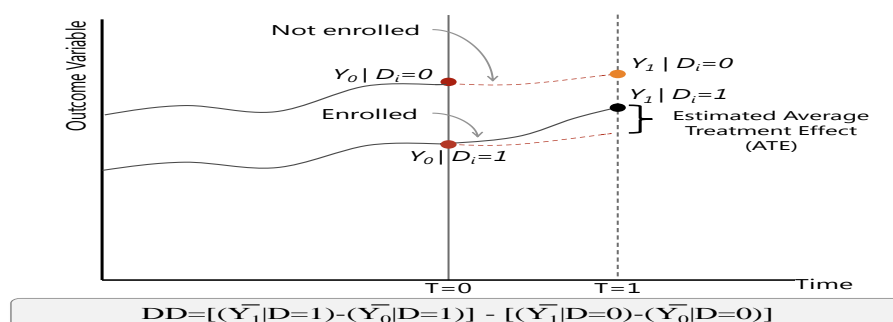
Source: World Bank 2012

The Table 02 $(Y_1|D=1)-(Y_0|D=1)$ represents the difference in mean income of the households in the treatment group while the difference in mean income of the control group households is represented by the expression $(Y_1|D=0)-(Y_0|D=0)$.The difference in difference or the double difference method is basically identifies the net impact from the treatment and then the double difference method could be expressed as;

$$DD = (Y_1|D=1)-(Y_0|D=1) - (Y_1|D=0)-(Y_0|D=0)$$

If the treatment did not affect the selected treatment group, then $(Y_1|D=1)-(Y_0|D=1)$ should be equal to the $(Y_1|D=0)-(Y_0|D=0)$ (World Bank 2012). It means that difference between these two values reflect the net impact of the treatment. In this process all influences from the external factors could be taken into consideration and ultimately researcher could be ended up with the identified net impact of the treatment.

Figure-01. Difference in difference analysis using graphical representation



Source: World Bank 2012

In the above graphical representation Y axis represents the outcome variable and the X axis represents the time period. According to that T=0 represent the time period prior to the treatment and T=1 represent the time period after the treatment. Not enrolled means the control group while enrolled group is the treatment group. It is important to assess the validity of this estimate. As such validity of this is based on the assumption that the trend of both the treatment and the control groups is same. In the above graphical representation dashed lines represent the identical trend line and the average treatment effect estimated is denoted by ATE.

4. Discussion

The use of double different method for impact studies is very common in microfinance and it has broadly discussed in the methodology chapter.

Table-03. DID calculations

| | Treatment Group (Average Income) | Comparison Group (Average Income) |
|--------------------|--|---|
| After the program | $Y_1(u_i) / D_i=1 = 15,280$ | $Y_1(u_i) / D_i=0 = 10,971$ |
| Before the program | $Y_0(u_i) / D_i=1 = 11,250$ | $Y_0(u_i) / D_i=0 = 10,350$ |
| Difference | $(Y_1/D=1)-(Y_0/D=1) = 4,030$ | $(Y_1/D=0)-(Y_0/D=0) =621$ |

Source: Author Compiled

According to the DID method as shown in the Table 03, $Y_1(u_i) | D_i=1$ is the mean value of the household income of the treatment group after getting the treatment. In here the considering treatment is the use of microcredit facility. According to the table mean income of the treatment household after getting microfinance is Rs 15,280. $Y_0(u_i) | D_i=1$ is the mean household income prior to the microfinance project and it was Rs.11, 250. The differences between these two mean values represent the change of mean income of the treatment group within the project period and it is Rs.4, 030.

At the same time, DID method consider about the control group. Hence, $Y_1(u_i) | D_i=0$ is the mean income of the control group after the project completion and it was Rs.10,971. Before the project interventions mean income of the control group was Rs.10,350 and the difference between these two values represent the changes of control group income within the project period due to factors other than the project interventions. Then the next step of this process is to calculate the double difference of the above calculated differences. According to that following equation could be used.

$$DD = (Y_1/D=1)-(Y_0/D=1) - (Y_1/D=0)-(Y_0/D=0)$$

Based on the Double difference method the calculated DID value is equal to the Rs.3, 409. It indicate that the net impact of the microfinance on treatment group. On the other hand, DID has control all other influences which leads to the difference in the mean income of the treatment households and the control households.

Another significance statistical measurement to analyze the impact of microfinance on income level is the use of one sample t test. According to the one sample t-test as shown in the Table 04 mean value of the income of the respondents is Rs.23, 134.70. This mean value is the mean income of the households based on the field survey conducted by the researcher. But this mean value does not to give any statistical evidence on changes of income in the long term. Table 05 shows the one sample t test for this analysis and according to that test value 15,280 is the mean income of the household at the of the post project evaluation and the present mean household income is Rs.23, 135 and the mean income of the household at the post project evaluation is statistically different from the mean income of the household at the existing stage of 5% level of significances. Changes in each income decline are presented in figure 02.

Table-04. One-sample statistics

| | N | Mean | Std. Deviation | Std. Error Mean |
|--------|----------|-------------|-----------------------|------------------------|
| Income | 100 | 23,134.7000 | 4,741.32221 | 474.13222 |

Source: Author Compiled

Table-05. One sample test – Significance evaluation

| Test Value = 15280 | | | | | |
|--------------------|------|-----------------|-----------------------------------|--------------|-------------------|
| T | df | Sig. (2-tailed) | Mean Difference of the Difference | 95% Interval | Confidence |
| | | | | Lower | Upper |
| Income | 16.6 | 99 | 0 | 7,854.7 | 69,13.92 8,795.48 |

Source: Author Compiled

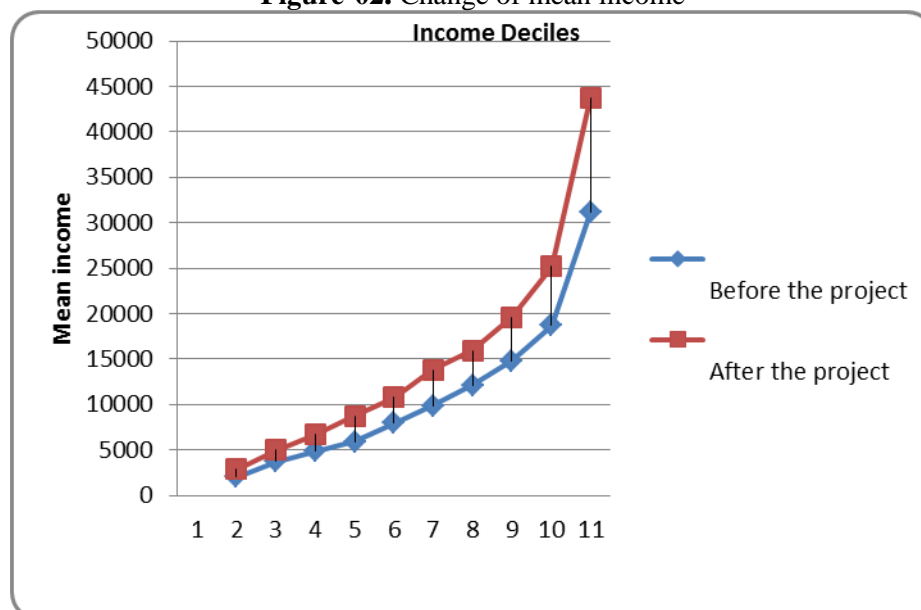
Table-06. Changes of mean income of the households

| Income Category | Before | After | Difference | % Difference |
|-----------------|--------|--------|------------|--------------|
| 1 | 2,029 | 2,866 | 837 | 41.25 |
| 2 | 3,699 | 4,977 | 1,278 | 34.55 |
| 3 | 4,829 | 6,674 | 1,845 | 38.21 |
| 4 | 5,942 | 8,711 | 2,769 | 46.6 |
| 5 | 7,935 | 10,813 | 2,878 | 36.27 |
| 6 | 9,875 | 13,800 | 3,925 | 39.75 |
| 7 | 12,121 | 15,961 | 3,840 | 31.68 |
| 8 | 14,818 | 19,603 | 4,785 | 32.29 |
| 9 | 18,710 | 25,212 | 6,502 | 34.75 |
| 10 | 31,121 | 43,726 | 12,605 | 40.5 |

Source: Adopted from MREAP

According to the Table 06 it shows how the mean income of the each income deciles changes before and after the project intervention. When consider about the first income category their mean income was Rs.2029 and at the end of the project period it was Rs.2866.it shows the 41.25% of change. Highest mean income change could be experience in the 4th income category and it was 46.60%.as such there was significant changes in the mean income of each and every income categories.

Figure-02. Change of mean income



Source: Author Compiled

Analysis of the Real Income of the Households

Analysis of the changes in real income of the beneficiaries before and after the project intervention is shown in the Table 07. For the purpose of calculating the real income of the household researcher used the Colombo Consumer Price Index and for year 2007 it was 163.10 and the based year was 2002.

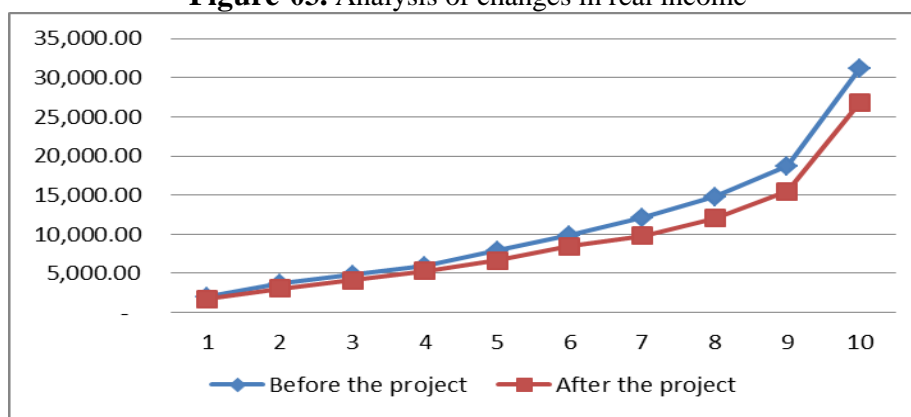
According to that the real mean income of the households has decreased in all income categories. It indicates the necessity of healthy economic condition for effective and efficient functioning of the microfinance activities. Colombage (2004) emphasized the importance of this fact or with the evidences from Sri Lanka. As he stated unfavorable economic conditions negatively influence not only on the poor consumers but also on the micro enterprises as well. High inflation, budget deficits, external payment disequilibrium are identified problems associated with the economy in Sri Lanka. This real income reduction of the household does not revealed that microfinance program did not make any influence on the income level of the households and it is a result of unhealthy. Figure 03 depicts these changes in real income of the households before and after the project. If huge fluctuations in economy are prevailing further interventions of foreign donors on microfinance projects also will affect negatively. Therefore, this signals the existing government about the effects of unsound macroeconomic policies of the government.

Table-07. Changes in real mean income of the beneficiaries

| Income Category | Before the Project | After the Project |
|-----------------|--------------------|-------------------|
| 1 | 2,029.00 | 1,757.20 |
| 2 | 3,699.00 | 3,051.50 |
| 3 | 4,829.00 | 4,091.97 |
| 4 | 5,942.00 | 5,340.90 |
| 5 | 7,935.00 | 6,629.68 |
| 6 | 9,875.00 | 8,461.07 |
| 7 | 12,121.00 | 9,786.02 |
| 8 | 14,818.00 | 12,019.01 |
| 9 | 18,710.00 | 15,458.00 |
| 10 | 31,121.00 | 26,809.32 |

Source: Author Compiled

Figure-03. Analysis of changes in real income



Source: Author Compiled

5. Conclusion

Study on microfinance project conducted by MREAP supported to ended up with significance finding on Sri Lankan Microfinance industry. According to the study microfinance facilities provided by MREAP supported to enhance the income of the people. Further this project has contributed to the

micro and small enterprises. Positive influence of microfinance on peoples' lives is proved through the improved living standard of the people.

Another finding of this study reveals that microfinance positive influence on peoples' lives was hampered due to the prevailing economic condition in Sri Lanka. Therefore even though nominal income of the households has increased due to the inflation in country household real income has affected. Respondents' comments highlighted the importance of supervision of microfinance activities even after the project activities were terminated by the foreign donors.

Therefore this study paved the path for government and all the other responsible authorities to improve the quality and the relevance of the microfinance projects. As study shows training on income generation activities, supervision of the microfinance projects even after the project period, and product marketing strategies for microcredit receivers are paramount important for the success of microfinance.

Based on all the analysis it could be concluded that MREAP project is a successful project which helps beneficiaries to alleviate the poverty but in the long run its impacts are weakened due to the non-availability of continuous supervision and the unhealthy economic condition in country.

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