



# PPAF Micro Credit Financing: Assessment of Outcomes



by GALLUP Pakistan

Pakistan Poverty Alleviation Fund

## Contents

|                                                                   |    |
|-------------------------------------------------------------------|----|
| Foreword .....                                                    | i  |
| Overall Assessment .....                                          | 1  |
| Overview of Study .....                                           | 2  |
| Executive Summary .....                                           | 4  |
| 1. Change in Personal Income.....                                 | 6  |
| 2. Change in Household Income.....                                | 6  |
| 3. Change in Sector Wise Income .....                             | 6  |
| Agriculture.....                                                  | 7  |
| Livestock.....                                                    | 7  |
| Enterprise .....                                                  | 7  |
| 4. Change in Household Consumption .....                          | 8  |
| 5,6. Change in Food Consumption .....                             | 8  |
| 7. Change in Consumption of Home Produced Items.....              | 8  |
| 8. Acquisition of Household Consumer Durables .....               | 9  |
| 9. Acquisition of Property and Business Assets.....               | 9  |
| 10. Building of Financial Assets .....                            | 10 |
| 11. Generation of Employment .....                                | 10 |
| 12. Increase in Operating Surplus .....                           | 10 |
| 13. Improvement in Living Conditions (House Repairs).....         | 11 |
| 14. Additions to Household Facilities.....                        | 11 |
| 15. Enhancement in Social Life .....                              | 11 |
| 16. Improvement in Occupational/Agricultural Practices .....      | 12 |
| 17. Enhancement of Social Status of Men and Women .....           | 12 |
| <br>A Summary of the Findings on Other Subjects of Interest ..... | 13 |
| List of Hypothesis and Summary Assessment.....                    | 14 |

# Foreword

We are pleased to share the findings of the “Assessment of Outcomes” of PPAF’s Microcredit program – a national level study covering 1,800 households in all provinces. The study was conducted as an external third party exercise and covers the period 2001 – 02, when the average loan size of PPAF microcredit was around Rs 9,050. The scope of study was to assess whether PPAF’s microcredit financing is having an interim impact, if any on lives of its clients as well as serve as a baseline for follow-on studies. It is very encouraging to note that the overall direction of change has been positive and lives of PPAF clients are steadily improving across a broad spectrum of economic, financial and social indicators. At the same time, it must be realized that the study has been carried out early in the project. Therefore, caution should be exercised in the interpretation of results.

Stemming from the study, a range of interesting in-house learning has taken place. Results show that although PPAF’s present average loan size is extremely relevant in terms of poverty targeting, it may not generate the surpluses required at the household level for increased food consumption, increased financial assets, improved agri-inputs and employment creation. Additionally, the more progressive microcredit clients have felt that the arbitrary credit ceiling of Rs 30,000 was too prohibitive for their business expansion plans. In order to cater to their needs, PPAF has now initiated the Enterprise Development Facility, under which eligible clients, who show potential for growth, are provided financing of more than the mandated Rs 30,000.

I would like to take this opportunity to thank Mr. Ahmad Jamal, General Manager CED, and his management team for their valuable inputs, which added considerably to the quality of the work undertaken. In addition, I take this opportunity to thank Gallup (Pakistan) and our partner institutions for their dedicated hard work and cooperation without which this study could not have been undertaken.

Kamal Hyat  
Chief Executive

## Overall Assessment

“Our research shows that there is adequate evidence to suggest that on the average low income households who borrowed from PPAF are better off today than they would have been if they had not borrowed. On the average their income levels have risen, their consumption has increased, there is improvement in their personal and business assets, their life-style by way of housing facilities is better than before and their social status, particularly of the women borrowers, has undergone a positive change. Admittedly the scale of change is limited, as is the scope and amount of the loan. But the direction of change is on the whole positive. Our research shows that the benefits of PPAF loan appear in terms of poverty alleviation and improvement in the basic life-style indicators of the borrower. The direct impact on building business assets, generating employment or the effect on other development indicators does not appear to be very significant. However the improvement in the basic life-style indicators of the micro-credit borrowers can possibly have a second order positive effect on development indicators.”

Gallup, Pakistan

# Overview of Study

This study focuses on gauging the outcome of participation in the micro credit program of Pakistan Poverty Alleviation Fund (PPAF), an autonomous private company sponsored by the Government of Pakistan and funded by the World Bank. PPAF was established in February 1997 **“to help the poor by facilitating them in getting access to resources for their productive self employment, to encourage them to embark on the activities of income generation and poverty alleviation, and for enhancing their quality of life”**.

PPAF is providing the financial assistance through its three main windows.

- By undertaking micro-credit programs.
- By providing community physical infrastructure on cost sharing basis.
- By strengthening and building the institutional capacity of partner organizations and communities.

The current study focuses only on its micro-credit program\* by identifying and assessing the socio-economic outcomes of the program on PPAF borrower in comparison with a comparable group of non-borrower at individual, households and enterprise/livestock/ agriculture level. The core hypotheses that have been tested to evaluate the outcome of loan are as follows:

- It leads to increase the household's total income, personal income of the borrower, income from the source for which the loan has been taken, as segregated in three main categories namely, agriculture, livestock and enterprise/commerce.
- It helps its clients to attain improvement in the level of consumption through spending more on overall food and on high calorie food items. Furthermore consumption level for those items that are consumed by household own production also experiences improvement.
- It leads to increase in household ownership level as possession of consumer durables, financial assets, and enterprise/livestock/agriculture related assets.
- It leads its client to live improved business and personal life as by spending more on housing, education, recreation, personal accessories, health-care, agriculture/livestock inputs etc.
- It leads to increase operating surplus.

- Participation in micro credit program leads to an increase in the borrower's own perceived status and control over resources in the household and greater participation in community affairs and local politics. This might be especially true for female recipients of micro-finance loans.

The above hypotheses have been tested both for borrowers of PPAF and non-borrowers of the same profile for current year and previous year specifically for the period before and after loan taking. The effects of the micro credit financing have been evaluated through measuring the change in the concerned variables over a year. Our study is based on the expectation that the benefits of participation in the financial service offered by PPAF would be manifested in a period of one year.

# Executive Summary

It may be mentioned at the very outset that this document is not an academic paper. It is a Survey Report meant for quick and timely policy input. In that spirit it identifies certain key variables, frames clearly spelled out hypotheses and tests them on the basis of data gathered recently from a representative set of households from all across Pakistan. This is not to ignore that Outcome Assessment is a complex and complicated subject which involves a number of nuances and ambiguities. And yet there are certain indicators such as personal and household income, consumption and purchase of assets which provide reasonably valid insight into the change (or its absence) in the life of the households which are being studied. Briefly this study is based on 17 hypotheses suggesting that micro finance improves the socio-economic life of its recipients. The data collected in the course of our study suggests that while a number of these hypotheses are validated, some are not, or that they require serious qualifications or explanations. In the pages that follow we have clearly spelled out our methodology, the data and its interpretation.

As for the methodology we have followed, what may be called as, the counter-factual “combined approach”. It combines the “with-without approach” and the “before–after approach”. The “with–without approach” gathers data on the life of a sample of borrower households and compares it with the data collected from a comparable sample of non–borrower households. The “before–after” approach makes a comparison of the change in the life of both groups during the interlude of a year marking the period during which the borrower household benefits from the micro-finance loan. While the quantitative data gathered from over 1700 households, interviewed in 140 community organizations spread in 17 districts in all the four provinces of Pakistan, forms the core of outcome study, these data are further elaborated through perceptual and qualitative data collected from the borrower households on what is their own assessment of the net impact of micro-finance loan on their lives.

The field work for this study was carried out during August-September, 2002. It was carried out by a competent team of men and women field researchers. They were trained thoroughly with the help of specially designed training instructions before they undertook the field work. A team of supervisors cross-checked their work and provided the necessary guidance.

The data were processed in two stages. In the first stage a team of researchers edited the entire set of questionnaires and prepared summary statistics on key variables. This formed the basis for the preliminary report. This team also made the necessary computations on incomes, expenditures and rates of investments. Later the entire data was computer processed and analyzed with the help of Statistical Package for Social Sciences. A team of senior researchers carried out the analysis of the data.

The findings of this study have been summarized in the form of 17 principal hypotheses. In each case it has been assessed as to whether the hypothesis is held, not held or partially held by the evidence collected from the field. Given below is a summary of our assessment.

A quick glance at the following hypotheses and their assessment in the light of the survey data would be helpful.

## 1. Change in Personal Income

**Hypothesis:** Participation in micro-credit leads to increase in personal income.

On the whole around 41% of borrowers and 32% of non-borrowers experienced positive change in their income over the period under study. The ratio of borrowers experiencing positive change in their personal income is significantly higher than non-borrowers. This difference is statistically significant (at 95% level of significance). Further increase in the mean income of the borrower group is proportionally higher (8%) compared to the non-borrower (5%). This is a statistically significant difference (at 95% level of significance).

Hypothesis is: ☒ held ☐ not held ☐ partially held

## 2. Change in Household Income

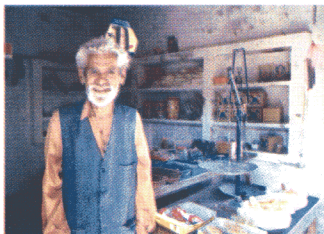
**Hypothesis:** Participation in micro-credit leads to increase in household income.

On the whole around 44% of borrowers and 33% of non-borrowers experienced positive change in their household income over the last one-year period. The ratio of borrowers experiencing positive change in their monthly household income is significantly higher compared to non-borrowers. The difference is statistically significant (at 95% level of significance). Further increase in the mean income of the borrower group is proportionally higher (9%) as compared to non-borrower (6%). This difference is statistically significant (at 95% level of significance).

Hypothesis is: ☒ held ☐ not held ☐ partially held

## 3. Change in Sector Wise Income

**Hypothesis:** Participation in micro-credit leads to increase net annual income (inclusive of the imputed value of own production, which was used by household) from 3 key sectors.



**AGRICULTURE:** On the whole around 47% of borrowers and 48% non-borrowers experienced positive change in their net annual monetary as well as non-monetary income from agriculture. The ratio of borrowers experiencing positive change in their net annual income from agriculture is slightly lower than non-borrowers but the difference is not statistically significant. However the change in mean income from agriculture (inclusive of the imputed value of own production, which was used within the household) is considerably higher for the borrower group (9%) compared to the non-borrower group (2%). This difference is statistically significant (at 95% significance level).

**LIVESTOCK:** On the whole around 36% borrowers and 33% non-borrowers experienced positive change in their net annual monetary as well as non-monetary income from Livestock. The ratio of borrowers experiencing positive change in their net annual income from livestock is slightly higher than non-borrowers. But the difference is statistically not significant. However the change in mean income from livestock (inclusive of the imputed value of own production, which was used within the household) was considerably higher for the borrower group (13%) compared to the non-borrower group (0.7%). This difference is statistically significant (at 95% significance level).

**ENTERPRISE:** On the whole 65% borrowers and 47% non-borrowers experienced positive change in their net annual monetary as well as non-monetary income from enterprise/commerce. The ratio of borrowers experiencing positive change in their net income from enterprise/commerce is proportionally higher than non-borrowers. This difference is statistically significant (at 95% level of significance). Furthermore the change in mean income from enterprise/commerce (inclusive of the imputed value of own production, which was used within the household) was considerably higher for the borrower group (7%) compared to the non-borrower group (-3%). This difference is statistically significant (at 95% significance level).

Hypothesis is: ☒ held ☐ not held ☐ partially held



## 4. Change in Household Consumption

**Hypothesis:** Participation in micro-credit leads to increase in consumption of household.

On the whole around 34% of borrowers and 30% of non-borrowers experienced positive change in their overall expenditures during the study period. Ratio of borrowers who experienced positive change is significantly higher than the non-borrowers. The difference is statistically significant (at 90% level of significance). Further change in the mean expenditure of the borrower group is proportionately higher (7%) compared to the non-borrower group (5%). This is statistically significant difference at (90% level of significance)

Hypothesis is: ☒ held ☐ not held ☐ partially held

## 5, 6. Change in Food Consumption

**Hypothesis:** Participation in micro-credit leads to increase in consumption of overall food.

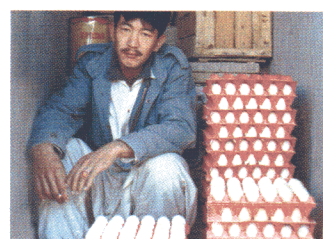
**Hypothesis:** Participation in micro-credit leads to increase in consumption of key high protein food items.

The data show that the change in mean expenditure on overall food items is almost the same for both borrowers and non-borrowers (6% and 7% respectively). However the change in key food items, with high protein contents, is higher among borrowers (chicken, beef, eggs, ghee/oil and milk) compared to non-borrowers. These are relatively more nutritious items and the increase in their consumption level during the period under study is significantly higher among borrowers compared to non-borrowers. Hence it shows improved food intake among borrowers.

Hypothesis is: ☐ held ☒ not held ☐ partially held  
Hypothesis is: ☒ held ☐ not held ☐ partially held

## 7. Change in Consumption of Home Produced Items

**Hypothesis:** Participation in micro-credit leads to increase in consumption of home produced items.



On the whole increase in the consumption of milk, honey and rice was proportionately higher among the borrowing households as compared to non-borrowing households, during the period under study. In the case of wheat and fertilizer, however the increase was proportionately higher among the non-borrowing households. While wheat is generally considered a cheaper substitute of rice, the case of fertilizer is notable for being an exception to the general pattern.

Hypothesis is: ☐ held ☐ not held ☒ partially held

## 8. Acquisition of Household Consumer Durables

**Hypothesis:** Participation in micro-credit leads to increase in the possession of consumer durables

The data show that the increase of assets is higher among the borrowing households as compared to the non-borrowing households. Acquisition of relatively expensive items such as VCR/VCP, iron, fan, washing machine and bicycles was significantly higher among borrowers as compared to the control group.

Hypothesis is: ☒ held ☐ not held ☐ partially held

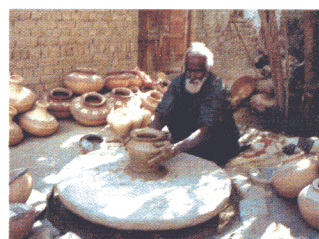
## 9. Acquisition of Property and Business Assets

**Hypothesis:** Participation in micro-credit leads to increase in the possession of enterprise/livestock/ agriculture related assets

On the whole the number of borrowers who made additions to their property as well as enterprise related assets are more than the non-borrowers. But the results are mixed.

Taking into account the entire range of property and business assets

Hypothesis is: ☐ held ☐ not held ☒ partially held



## 10. Building of Financial Assets

**Hypothesis:** Participation in micro-credit leads to increase in the possession of financial assets.

On the whole the survey shows that the borrower group made more additions to assets during the period under study compared to the control group. The asset building is more pronounced in the case of household goods and less so for financial assets or business and agricultural assets. Apparently the loan is too small to lead to building the latter type of assets.

Hypothesis is: ☐ held ☒ not held ☐ partially held

## 11. Generation of Employment

**Hypothesis:** Participation in micro-credit leads to increase in paid employment generated by 3 key sectors.

The data show that neither of the two groups, borrowers and non-borrowers made notable contribution to employment generation. Apparently the size of their business or agricultural and livestock activity, as well as the scale of loan is insufficient to make substantial contribution in this area.

Hypothesis is: ☐ held ☒ not held ☐ partially held

## 12. Increase in Operating Surplus

**Hypothesis:** Participation in micro-credit leads to increase in operating surplus.

The data show that a higher proportion of borrowers (60%) reported operating surplus in current year as compared with previous year (56%). Among the non-borrowers there was no increase. The figures show that there was around 7% increase in the number of persons among client group who accrued operating surplus while the change among non-borrowers was nil.

Hypothesis is: ☒ held ☐ not held ☐ partially held



### 13. Improvement in Living Conditions (House Repairs)

**Hypothesis:** Participation in micro-credit leads to increase in expenditure on house repair.

The data show that on average the borrowers spent Rs 1,844 and Rs 878 during the current and the previous years respectively on house repair. The comparative figures for the non-borrowers were: Rs 702 and Rs 486. Thus while the borrowers made a positive change to the tune of 110%, the non-borrowers experienced a positive change to the tune of 44%.

Hypothesis is: ☒ held ☐ not held ☐ partially held

### 14. Additions to Household Facilities (Latrine, Water Connection, Electricity, Gas, Telephone)

**Hypothesis:** Participation in micro-credit leads to the use of better household facilities.

On the whole the positive improvement is higher in the case of borrowers compared to the non-borrowers.

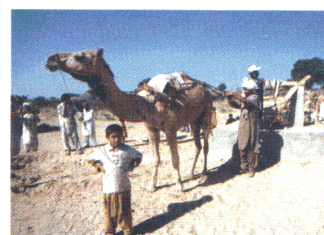
Hypothesis is: ☒ held ☐ not held ☐ partially held

### 15. Enhancement in Social Life

**Hypothesis:** Participation in micro-credit leads to increase in expenditure on miscellaneous events and items.

The data show that the borrowers spent more on items like funerals, recreation, animal keeping, other accessories, on rent and traveling as compared to the non-borrowers. Moreover the average amounts spent by borrowers were higher than the average amounts spent by the non-borrowers during period under study.

Hypothesis is: ☐ held ☐ not held ☒ partially held



## 16. Improvement in Occupational/Agricultural Practices (better seeds and other inputs)

**Hypothesis:** Participation in micro-credit leads to the use of better agriculture inputs.

The data does not show a significant difference between the changes experienced by the borrowers and the control group during the study period.

Hypothesis is: ☐ held ☒ not held ☐ partially held

## 17. Enhancement of Social Status of Men and Women

**Hypothesis:** Participation in micro-credit leads to improvement in social status

Based on the data concerning change in perceived social status, participation in politics and control over financial resources we get a mixed picture. However on the whole the borrower group seems to have improved its social status during the period under study.

Hypothesis is: ☒ held ☐ not held ☐ partially held



## **A Summary of the Findings on Other Subjects of Interest**

are the following:

### **Return on Investment**

While it is quite complicated and hazardous to compute the return on investment for a micro-credit under the conditions, which were the subject of our study, one can however arrive at what may be seen as an informed and educated estimate. We have roughly estimated the mean return on investment for the loans averaging around Rs 9,138 at approximately 30% per annum.

### **Value of Loan Required by Borrowers**

While the mean value of loans received by the borrower group was Rs 9,138, their preferred amount, they said, would have been Rs 17,136.

### **Personal Assessment of the Borrower**

In response to a direct question on the subject, nearly 90% of the borrowers said that the loan had benefited them.

### **Views on Repeat Borrowing**

When asked if they would like to borrow again from the same community organization, 88% of the borrowers answered in the positive.

## List of Hypotheses and Summary Assessment

Hypotheses regarding Effect of Micro-finance on the Socio-economic Status of Borrowers\*

|                                                                                                                          | Held | Not Held | Partially Held |
|--------------------------------------------------------------------------------------------------------------------------|------|----------|----------------|
| 1. Participation in micro-credit leads to increase in personal income                                                    | ✓    |          |                |
| 2. Participation in micro-credit leads to increase in household income                                                   | ✓    |          |                |
| 3. Participation in micro-credit leads to increase net annual income from 3 key sectors                                  | ✓    |          |                |
| 4. Participation in micro-credit leads to increase in consumption of household                                           | ✓    |          |                |
| 5. Participation in micro-credit leads to increase in consumption of overall food                                        |      | ✓        |                |
| 6. Participation in micro-credit leads to increase in consumption of key food items                                      | ✓    |          |                |
| 7. Participation in micro-credit leads to increase in consumption of home produced items                                 |      |          | ✓              |
| 8. Participation in micro-credit leads to increase in the possession of consumer durables                                | ✓    |          |                |
| 9. Participation in micro-credit leads to increase in the possession of enterprise/livestock/ agriculture related assets |      |          | ✓              |
| 10. Participation in micro-credit leads to increase in the possession of financial assets                                |      | ✓        |                |
| 11. Participation in micro-credit leads to increase in paid employment generated by 3 key sectors                        |      | ✓        |                |
| 12. Participation in micro-credit leads to increase in operating surplus                                                 | ✓    |          |                |
| 13. Participation in micro-credit leads to increase in expenditure on house repair                                       | ✓    |          |                |
| 14. Participation in micro-credit leads to the use of better household facilities                                        | ✓    |          |                |
| 15. Participation in micro-credit leads to increase in expenditure on miscellaneous events and items                     |      |          | ✓              |
| 16. Participation in micro-credit leads to the use of better agriculture inputs                                          |      | ✓        |                |
| 17. Participation in micro-credit leads to improvement in social status                                                  | ✓    |          |                |

\* Determined through counterfactual analysis carried out by a combination of "with-without" and "before-after" approaches.