

Millennium Development Goals to Sustainable Development Goals: Poverty Reduction and Primary Education in Sindh Province of Pakistan

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Abstract

Background: This study intends to discuss the status of Millennium Development Goals and analyze the role of microfinance in the improvement of the first two important goals of poverty reduction and achieving universal primary education in the Sindh province of Pakistan. **Methods:** The data were collected at the end of the year 2015 when the deadline of previous millennium development goals (MDGs) was coming to an end. This study was conducted in the population of Mirpurkhas district of Sindh province and randomly selected 350 households from different villages. **Results:** The results show the low socioeconomic status of people living in rural areas of the Sindh province of Pakistan. Household poverty was 30% in the study area and people were living in a poor rural infrastructure environment. The study has found low literacy rates with 53% male and 17% female literacy. The majority (97%) of households had access to government primary schools in the area but more than half (51%) of children of school-going age were not enrolled. In logistic regression analysis, a significant association of poverty was noted with the education of household head, land ownership and microcredit loans. **Conclusion:** The results of the study show that there was a significant role of microfinance in achieving poverty reduction, but overall indicators of poverty and education remained unachieved due to inconsistent policies and weak institutional structure in the study population.

Keywords: Microfinance, Poverty, Rural, Agriculture Credit, Sindh, Pakistan

1. Introduction

After the end of the deadline of previous millennium development goals (MDGs) now the world has another agenda of sustainable development goals (SDGs). SDGs are basically the extension of those MDGs with new targets and deadlines. In the current situation, we have 17 SDGs which were developed in the United Nations (UN) summit in September 2015. It is clearly mentioned in the SDGs that poverty in all its forms will be eradicated from all over the world by 2030.^{1,2} For that purpose, it was recommended that all countries should implement appropriate social protection systems and achieve

substantial coverage of the poor and the vulnerable. Furthermore, SDG 1.4 highlights the importance of microfinance by giving a recommendation of financial services for the poor including microfinance. The first SDG also advocates the formation of a pro-poor policy framework and gender-sensitive development strategies for the support of accelerated investment in poverty eradication actions.^{3,4} These development goals were prepared in the shape of quantifiable terms to address extreme poverty, hunger, disease, gender equality, education, shelter and environmental sustainability. The international consensus had been made to make

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the framework of development goals along with specific targets and technical indicators.⁵

Previously adopted MDGs were very much promising in the sense that the achievement of these targets could change most of the world picture as compared to the last decade of the 20th century. It was expected that more than 500 million people will become out from extreme poverty and 300 million will be skipped from hunger. The safe drinking water will be available to 350 million people and 650 million will get sanitation facilities. The enrolment of boys and girls will be in 100 of millions and health facilities will be provided at large to children and mothers.^{6,7} But when the deadline is reached, the development professional and academicians have a lot of questions regarding the achievement of previous MDGs in the world. At the same time after the completion of the deadline in 2015 now it is claimed that a significant achievement observed in the completion of these MDGs by United Nations Development Program (UNDP) and other stakeholders. According to the World Bank figures, the proportion of people living in extreme poverty in the developing countries has been declined to 14 % in the year 2015 as compared to the year 1990 as the number of persons falling from 1.9 billion to 836 million. Primary enrolment has been increased and now more girls are school going as compared to the figures for the year 2000.³

In all this debate of success, there is a crucial thing that is a matter of concern for all stakeholders. This concern is highlighted by post review studies and experts that few regions and countries could not get desired results for these MDGs. Like, the shelter conditions and disease control not achieved at the required level. Environmental degradation continued and most of the countries could not put in practice the strategies to get their MDGs targets. The target of gender parity in primary and secondary education and other targets of the environment and clean water missed out in many countries.^{8,9} The variance of the level of achievement in targets of MDGs in different countries has raised questions on the performance and planning of those countries.

If we focus on Pakistan, it is revealed that the country adopted 41 indicators for 14 targets in different fields of MDGs. The performance of Pakistan shows that it is on the right track to achieve the targets on nine indicators whereas it has low performance towards 24 indicators and targets are unlikely to be achieved.¹⁰ Although Pakistan had taken some concrete decisions to reduce poverty

including microfinance since 2000 but it has mixed results with geographical variations.¹¹

This study has analyzed the situation of two MDGs in the Sindh province and linked these indicators to microfinance in order to understand the possible contribution of microfinance in achieving these targets.

The first MDG was developed to eradicate extreme poverty and hunger in the world and extreme poverty characterized by those individuals whose income was less than the United States Dollar (US \$) 1.25 per day. Hunger and low income are the cause and consequences of chronic poverty. Microfinance could play a role in the extreme poverty reduction through raising the income of poor people. Microfinance clients are mostly those people who fall in the category of below 1.25 dollars per day income and microfinance can contribute to the raising of income of such people and give them the opportunity to come out from the extreme poverty by expanding their businesses and findings employment opportunities in the different occupations.¹² The microfinance has the capability to reach the people who are at the bottom level in the income groups of people against other commercial banks which prefer to reach the only group of top-level income people. It has been reported that the vast majority live below the poverty line on one dollar a day or two dollars income a day in poor and developing countries. The nature of microfinance operations like group formation process, social collateral approaches, and focus on women clients has made it feasible for any microfinance institution to touch the bottom level income people who are poor or less above their category.⁶ MDGs were a promise and they highlighted many dimensions of poverty when communicated to the world. But it is also criticism on MDGs that consideration has been given to rural and urban poverty in the formation of these goals and to issues of millions of refugees and homeless people in the world were not addressed. Despite this criticism, it is agreed by most of the development experts that MDGs were well-targeted and served as a better strategy to fight against poverty and hunger in the world.¹³ Microfinance played a role in that scenario as it offered opportunities and possibilities to contribute to the achievement of some MDGs by its direct impact on poverty and development of rural poor people. Microfinance also played a role in the eradication of hunger through enhancing agricultural productivity in remote areas where chronic poverty was a persistent phenomenon.

If low agricultural productivity is because of the un-affordability of agricultural inputs, microfinance loans are a great source of the hunger-free livelihood of rural poor people. Microfinance has the capacity for new and better-quality livelihoods for landless poor in the form of required inputs and linkages with other value chain groups.¹⁴ There are some microfinance providers like Grameen bank in Bangladesh who have a special program to reach chronic poor. But due to sustainability and profit, there are many microfinance providers who have not given adequate preferences to chronic poor and target the people who are poor or little above the poverty line. There is a need to design such products that can be beneficial for chronic poor and accomplish the task of first MDG.¹⁴ Another aspect of the significant contribution of microfinance was noted in the economic uplift of rural people especially. In rural areas microfinance contributed to decreasing hunger by enhancing the production of food crops and livestock. Microfinance assisted in raising of livestock animals and selling of milk in the market in addition to personal use. The provision of seeds and fertilizers due to microfinance to poor farmers and tenants enabled them to keep required grains for family use and sell additional products for profit in the Market.¹² In Pakistan one of the study, conducted by Asian Development Bank (ABD) noted that the income of poor households was increased and the income poverty decreased due to the intervention of microfinance services. The impact study was conducted in the beneficiary households of Khushhali Microfinance Bank. A positive impact on the agricultural production and activities of animal rearing was found in the study. Microfinance clients were using more significant agriculture inputs and possessed more equipment. The positive and significant association was noted for livestock value, sales and profit as compared to non-borrowers.¹⁵

The second MDG was about universal primary education and no direct link of microfinance was observed with the promotion of primary education but there is an indirect effect of microfinance was noted in the shape of higher progress in school going children of microfinance clients as compared to non-clients.^{6,12} In Pakistan, major policy documents like the Poverty Reduction Strategy Papers (PRSPs) had a significant focus on poverty, enhanced allocations for the social sectors, recognizing the need for a comprehensive social safety nets framework to protect the poor and vulnerable, the

focus on the rural economy, water resource availability and health and social services.

At the policy level, the National Social Protection Strategy (2007) more specifically addressed key targets of Goal one such as food insecurity and investment in human and physical assets. At the program level, the government-aligned its existing social safety net programs, i.e. the Zakat program (1980) and Pakistan Bait-ul-Mal (1992), with the adapted indicators. The Food Support Program (2002) was another success story whereby 2000 Pakistani Rupees per year were extended to around 1.25 million poor families in two biannual instalments through country-wide post offices. The Khushhali Pakistan Programme (KPP) generated economic activity through public works and temporary employment covering 17 sectors implemented by the district governments. Implementation of income generation projects relating to roads, water supply and sanitation improved people's quality of life. Similarly, the Pakistan Poverty Alleviation Fund (PPAF) was set up in 2000 with a view to enhancing access of low-income communities to government socioeconomic services. The Benazir Income Support Program (2010) targeted the poor through unconditional cash transfers. Various initiatives at the provincial level such as the Sasti Roti (affordable bread) scheme in Punjab and the Bacha Khan Rozgar Scheme are a clear reflection of the MDGs influence at the program level.¹⁶ Pakistan is among one the countries that are facing serious challenges in the eradication of poverty and low enrolment of school-age children. At the policy level government has taken many initiatives and programs of poverty reduction but there are some obstacles in achieving desired results. Previously there was rare evidence of such studies that were conducted on evaluating the performance of poverty reduction programs in relation to MDGs.^{17,18} At the national level, there are few performance reports exist which were performed by the government and international stakeholders and have been failed to highlight the problem and identify the factors of poor performance.¹⁷⁻¹⁹ It is therefore, a scientific study is needed to assess the status of Millennium Development Goals and analyze the role of poverty reduction interventions i.e. microfinance in the improvement of these development goals. This study has envisaged the two important goals of poverty reduction and universal primary education in the Sindh province of Pakistan and will be helpful in understanding the nature of the problem and devise possible solutions.

2. Methodology

A cross-sectional study was conducted to assess the status of two important MDGs of poverty and primary education in the Sindh province of Pakistan. The study selected 350 households in different villages of Mirpurkhas district comprising of 1300 male and female participants including their children of school-going age. Data was collected through hired data collectors in the study area. Multistage sampling was used to select Taluka, union councils and villages in the area. Furthermore, a simple random technique was used to select study participants. Informed consent was taken from the head of households and adult participants before the collection of information through a structured questionnaire. Descriptive analysis has been used to calculate the mean and standard deviation for continuous variables and proportions for categorical variables. Logistic regression analysis was used to determine the association of poverty with microfinance and other variables in the study.

3. Results and Discussion

In our study, we randomly selected 350 households from different villages of the Mirpurkhas district. There were 589 male and 711 female participants participated in the study. In addition, the children of school-going age from these households were also included in the study. Among participants 40% belonged to 18-30 years, 45% to 30-40 years and 15% were 41-60 years age (Table 1). The socioeconomic status of study participants was not up to mark and people were living below-average life in the villages. There were 65% of houses bricked building while 34% were living in thatched huts with poor living conditions. Agriculture was the main source of income of people and 59% of the households had their own small land holdings for cultivation. However, more than 40% of households were found landless in the rural environment. The infrastructure in villages was not found appropriate as more than 58% of villages had no road facility to reach nearer urban town (Table 2). Interestingly microfinance institutions (MFIs) had managed to reach in the remote areas and all villages had microfinance facilities available at their doorstep. Most of the people had availed microcredit from MFIs. These smaller loans were ranged from 10,000 to 100,000 Pakistani rupees.

In order to assess the level of poverty in selected households, we assumed 1.9 dollars per day income

Table 1. Social and demographic characteristics of the study population in district Mirpurkhas, Sindh

Characteristics	Frequency	%
Study participants		
Males	589	45.3
Females	711	54.7
Age categories		
18-30 years	520	40
30-40 years	585	45
41-60 years	195	15
Age Mean $\pm$ standard deviation (SD)	29.9	2.15
Education level of head of family		
Primary	74	48
Higher secondary	38	24
Intermediate	30	20
Graduate	8	11.2
Post graduate	4	3
Male Literacy		
Literate males	311	52.8
Illiterate males	278	57.2
Female Literacy		
Literate Female	120	16.8
Illiterate Females	591	83.2
Literacy		
Literate participants	431	33.1
Illiterate participants	869	66.9
Household access to primary education		
Yes	339	97
No	11	3
School going children		
Enrolled	553	49
Not enrolled	21	51

definition of poverty. We noticed that 105 households (30%) had per day income below 1.9 dollars and 245 households (70%) had had more than 02-dollar income (Table 2). Previously poverty incidence of the province has been noted at 31% in 2001/02 against the set targets of 13%. Trends show the slow progress in poverty reduction in the last two decades. Our data shows that still there are 30% of households living in poverty and need attention in the shape of government interventions for poverty reduction. There is limited evidence of accurate data for

Table 2. Socio-economic status of study participants in district Mirpurkhas, Sindh

Characteristics	Frequency	%
Household ownership		
Owned	295	84.3
Rented	18	5.1
Landlord property	37	10.6
House structure		
Bricked building	228	65.1
Thatched huts	96	34.9
Ownership of land		
Yes	208	59.4
No	142	40.6
Availability of roads		
Yes	146	41.7
No	204	58.3
Household poverty		
Less than \$1.9	105	30
Above \$1.9	245	70
Microfinance (Loan amount in categories)		
Less than PKR 25000	272	78.8
Above PKR 25000	78	22.2
Loan purpose		
Agriculture	168	48
Livestock	157	44.8
Other	25	7.2

this indicator in other poverty measurement means like caloric poverty which was also depicting a worsened picture of the province at 40% figure. In this scenario, no significant change is observed in the decrease of poverty in all forms as indicated in the first sustainable development goals to be achieved by 2030.¹⁸

The results of this study are showing the low performance of education and other departments working for children education in the Sindh province of Pakistan. When we inquired about the education level of head of households, it was noted that 48% of literate heads were primary pass and 24% and 20% had passed higher secondary and intermediate level school education. Among them 11% were graduates and a minor portion (3%) had got post-graduate-level education in their life. We assumed primary level education for the literate persons and found 33% of literacy rate among study participants. Our study provides more crucial results for education in the rural areas of Sindh province. We observed that 3% of the male were literate as compared to 7% female literate females and this analysis depicts the worsening situation

of female literacy in rural areas of Sindh province. It means there is little attention given to the education of the female population by all stakeholders in society. The results of the study show that children of the majority (97%) households had access to government primary schools in the area but more than half (51%) children of school-going age were not enrolled in these schools and out of the schools (Table 1). These figures show the poor performance of the province in achieving second MDGs in the study area. The primary enrollment remained 50% and the literacy rate is 58% in 2011–12 against the target of 88%. Gender parity is increased in primary and secondary level education but still falls short of MDGs targets set for 2015.^{20,21} The literacy rate is more than 1% point from the national average of 59% but it is behind the set targets of 88%. The variation also exists, between all geographical areas and districts of the province. Our study results show a majority of the households had access to primary schools and get primary education for their children. The overall literacy ratio in rural areas as compared to urban areas is already below the international standards but rates of female literacy showing an alarming picture of the society. This was one of the important millennium development goals and despite many schemes and concerns it could not be achieved and the same condition can prevail for sustainable development goals as well. In Sindh net primary enrollment ratio was noted at 53% in 2010–11, which is even below the national average. In this scenario, the situation of Sindh is more critical, where the enrollment of children has not been achieved as per the target of 100% set in the second MDG.¹⁸

In our study, we have found a significant association of poverty with the education of household head, land ownership and microcredit loans taken for the purpose of their major businesses like agriculture and livestock by the study population. The results show that those persons who have taken loans from different microfinance institutions are more likely to be non-poor than those persons who have not taken microfinance services (Table 3). The role of microfinance services in reducing extreme poverty has been documented in many previous studies conducted in developing countries. Those studies have shown a positive and significant impact of microfinance on the income of poor people. In India, it has been observed that three fourth of microfinance institutions clients noted the significant impact on economic poverty.²² Improvements in the living standard of poor people were also noted in one of the earlier studies of Bangladesh conducted

Table 3. Multivariable logistic regression analysis showing factors associated with poverty in the study population of district Mirpurkhas, Sindh

Variables	B	S.E	Wald	df	Sig	Exp (B)	95 % C.I. for Exp(B)	
							Lower	Upper
Education of household head	-.274	.065	16.692	1	.000	.760	.679	.764
Land ownership (1)	1.211	.281	18.504	1	.000	3.356	1.933	5.825
Loan amount in Categories (1)	2.368	.300	67.385	1	.000	12.919	7.624	22.333
Constant	-.425	.526	.651	1	.420	.654		

by the World Bank and it was observed that 48 % of poorest families who had access to microfinance from Grameen bank rose above the poverty line.²³ A previously published report on the status of MDGs noted significant performance towards the achievement of poverty reduction targets and claimed that Pakistan seems to be on the right track in the direction of reducing poverty in the next years. The report claimed that the percentage of population below the poverty line fell from 34.7% in FY 2002 to 12.4% in FY 2011 and Pakistan had achieved the first-millennium development goal, but our results show that it varies at the regional level. It seems some regions observed significant shortfall but many others like rural Sindh did not observe it.^{24,25}

4. Conclusion and Recommendation

This analysis shows that although the overall poverty has been decreased, still it is far away from the targets of millennium development goals for the province. Our study has pointed out the major determinant of prosperity as land ownership, education of household head and microfinance. There are also some limitations of this study like the selection of sample size from restricted area and constraints of financial and human resources. We were not in a position to expand our scope of the study to remaining MDGs and include various poverty reduction interventions. We have targeted the population of one province and paved the way for future studies in other provinces of Pakistan. However, this study has highlighted the gravity of the problem and identified the crucial factors required for the achievement of development targets. In this scenario, the results of the study will be helpful in implementing the agenda of SGDs in Pakistan. In the long run for achieving the SDGs in

the country, the government and other stakeholders must give attention to these factors along with improving the rural infrastructure and making the dynamic institutions for the welfare of society.

References

1. How to reconcile the millennium development goals (MDGs) and the sustainable development goals (SDGs)? [cited 2015]. <https://www.die-gdi.de/en/briefing-paper/article/post-2015-how-to-reconcile-the-millennium-development-goals-mdgs-and-the-sustainable-development-goals-sdgs/>.
2. Stevens C, Kanie N. The transformative potential of the sustainable development goals (SDGs). *Int Environ Agreem Polit Law Econ*. 2016;16(3):393–96.
3. Sustainable Development Goals. [cited 2019 Oct 2]. https://en.wikipedia.org/wiki/Sustainable_Development_Goals.
4. Allen C, Metternicht G, Wiedmann T. National pathways to the Sustainable Development Goals (SDGs): a comparative review of scenario modelling tools. *Environ Sci Policy*. 2016;66:199–207.
5. The millennium development goals report 2013. [cited 2013]. <https://www.un.org/millenniumgoals/pdf/report-2013/mdg-report-2013-english.pdf>.
6. Evidence of microfinance's contribution to achieving the millennium development goals. [cited 2006 Nov 12]. <https://community-wealth.org/sites/clone.community-wealth.org/files/downloads/paper-dumford.pdf>.
7. World health statistics 2016: monitoring health for the SDGs sustainable development goals. [cited 2015]. https://www.who.int/gho/publications/world_health_statistics/2016/en/.
8. Shyu CW. Ensuring access to electricity and minimum basic electricity needs as a goal for the post-MDG development agenda after 2015. *Energy Sustain Dev*. 2014;19:29–38.
9. Malik OA, Hsu A, Johnson LA, de Sherbinin A. A global indicator of wastewater treatment to inform the Sustainable

- Development Goals (SDGs). *Environ Sci Policy*. 2015;48:172–85.
10. Kumar S, Kumar N, Vivekadhish S. Millennium development goals (MDGS) to sustainable development goals (SDGS): addressing unfinished agenda and strengthening sustainable development and partnership. *Indian J Community Med*. 2016;41(1):1–4.
 11. Biermann F, Kanie N, Kim RE. Global governance by goal-setting: the novel approach of the UN Sustainable Development Goals. *Curr Opin Environ Sustain*. 2017;26:26–31.
 12. Sustainability and equity: A better future for all. [cited 2011]. <http://hdr.undp.org/en/content/sustainability-and-equity-better-future-all>.
 13. Millennium Development Goals Report 2012. [cited 2012 Jul 02]. <https://www.un.org/en/development/desa/publications/mdg-report-2012.html>.
 14. Banerjee AV, Duflo E. The economic lives of the poor. *J Econ Perspect*. 2007;21(1):141–68.
 15. Microfinance and the millennium development goals in Pakistan: impact assessment using propensity score matching. [cited 2008 Apr]. <https://www.adb.org/publications/microfinance-and-millennium-development-goals-pakistan-impact-assessment-using>.
 16. Pakistan Economic Survey 2012–13. [cited 2013]. <http://www.irispujab.gov.pk/StatisticalReport/Pakistan%20Economic%20Surveys/Pakistan%20Economic%20Survey%202012-13.pdf>.
 17. Awan MS, Waqas M, Aslam MA. Multidimensional poverty in Pakistan: Case of Punjab province. MPRA, Munich Personal RePEc Archive. 2011;3(2):133–44.
 18. UNDP. Report on the status of Millennium Development Goal Sindh; 2012. p. 1–114.
 19. Lopez-Calix J, Meija C, Newhouse D, Sobrado C. Pakistan poverty trends, scenarios and drivers; 2015. p. 1–76.
 20. The Pakistan Millennium Development Goals Report (PMDGR) 2013. [cited 2013 Jul 01]. <https://www.un.org/en/development/desa/publications/mdgs-report-2013.html>.
 21. World Health Organization. Health in 2015: from MDGs, millennium development goals to SDGs, sustainable development goals. World Health Organization; 2015.
 22. Simanowitz, A. Microfinance, poverty and social performance: overview. *IDS Bull*. 2003;34(4):1–9.
 23. World Development Report 1980. [cited 1980]. <http://documents.worldbank.org/curated/en/430051469672162445/World-development-report-1980>.
 24. World Development Report 2015: Mind, society, and behavior. [cited 2015]. <https://www.worldbank.org/en/publication/wdr2015>.
 25. Guriro S, Pathan PA. Rural poverty in Sindh and role of microfinance in poverty alleviation. *Grassroots*. 2015;49(2):1–4.