

The Extent and Impact of Non- formal Education in 28 Developing Countries

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ABSTRACT

Non-formal education, encompassing a wide array of activities, including alternative primary schools, youth training, literacy programs, and professional education, can be an important complement to formal education. This study uses household survey data to analyze non-formal education in 28 countries in 2000. The study finds that non-formal education is an important segment of the education system (more than 5% of all organized education) in seven out of the 28 countries, six of these in sub-Saharan Africa. The study approximates the impact of non-formal education by comparing incomes of households headed by persons with non-formal education compared to households headed by persons with no schooling or formal primary or secondary education. The results show that the incomes of households headed by a person with non-formal education vary widely – in 10 of the 28 countries, the average income of such households is equal to households headed by a person with secondary education or higher, in seven countries the average income of households headed by a person with non-formal education is equivalent to households headed by a person with no schooling at all – possibly a selection effect, or an indication the non-formal education is not effective in reducing poverty.

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INTRODUCTION

In some countries, where there are gaps in the formal public and private education systems, non-formal education programs are a way to reach children, youth, and adults with instruction. Non-formal programs are an umbrella designation for a wide array of activities, including alternative primary schools, youth training, literacy programs, and professional education.

The Global Monitoring Report 2008 (UNESCO, 2007) commissioned a review of non-formal education in developing countries, including a series of country-specific studies of Nigeria, South Africa, Ethiopia, Senegal, Zambia, Nepal, Afghanistan, Mexico, Philippines, Brazil, Vietnam, Tanzania, Botswana, India, Ghana, Egypt, Bangladesh, Thailand, Malawi, Peru², all compiled into an overview paper by Owusu-Boamong (2007). Those studies find that non-formal programs are extremely diverse and spread over a large number of agencies including many community programs. Non-formal programs can be focused on specific skill development or 'second chance' general education/literacy programs and can be for children, for youth, or adults (UNESCO, 2007:59-61)

Household surveys are another source of information about non-formal schooling. A review of the information in various household surveys housed at the International Household Survey Network databank (<http://www.internationalsurveynetwork.org/>) by the GMR concluded that, the collection of questions about non-formal education is too varied to allow an international comparison and inventory. The only series of household surveys

that has consistent and comparable questions on non-formal education are 28 Multiple Indicator Cluster Surveys (MICS) sponsored by UNICEF in 2000.

This study, which was a part of the GMR review of non-formal education, analyzes the information on non-formal education in the MICS surveys. The analysis uses the surveys to:

- 1) *Measure of the scale and extent of non-formal programs* – by measuring the proportion of household members who are attending non-formal programs or indicate some form of non-formal program as their highest level of education attainment.
- 2) *Approximate the impact of non-formal education* – by comparing different household incomes by level of education of the head of the household, including formal and non-formal education levels. If the average wealth of a group with non-formal is equal to, say, the wealth of those with complete primary education, the assumed implication is that the non-formal programs in that country correspond to finishing primary school, on average.

The 28 MICS are part of a large survey effort primarily to provide information on child welfare. The surveys contain an education module on school attendance and highest education attainment, which includes a category "non-standard curriculum" as one of five education levels (along with preschool, primary, secondary, and tertiary). The MICS surveys include the following levels of schooling: pre-primary, primary, secondary, higher, and non-standard curriculum.

According to the MICS manual, non-standard curriculum is defined as (UNICEF 2007:A3.12):

"A non-standard curriculum includes religious schools, such as Koranic schools, that do not teach a full, standard school curriculum. If a school teaches religious courses but also includes the standard curriculum – such as many Catholic schools – it would be coded as a standard school."

² These studies can be found on the EFA Global Monitoring Report background papers site, http://portal.unesco.org/education/en/ev.php-URL_ID=49629&URL_DO=DO_TOPIC&URL_SECTION=201.html H - Macpherson, 2008; Maruatona, 2008; Mitra, 2008; Owusu-Mensah, 2008; Sabur, 2008; Siltragoon, 2008; Swann, 2008; Zúñiga Castillo and Angulo, 2008.

The formal school system includes:

“primary, secondary and post-secondary schooling, as well as any other intermediate levels of schooling in the *formal school system*. It also includes technical or vocational training beyond the primary-school level, such as long-term courses in mechanics or secretarial work.”

EXTENT OF NON-FORMAL SCHOOL ATTENDANCE AND ATTAINMENT

A first comparative measure of non-formal schooling is the proportion of children that are attending non-formal school. A second measure is the proportion of adults who state non-formal is their highest level of education attained. The education attainment data provides “non-formal” only if this was the *highest* form of education that the respondent received; if the respondent started out with a non-formal program but then proceeded to a higher level of formal education, the non-formal portion of that person’s education is not counted – thus, attainment can be an under-estimate of non-formal education. The MICS surveys show that the portion of children of primary or secondary school age who are in non-formal schools varies widely from country to country, from zero to 30%. Table 1 (page 5) shows the attendance rate for primary school-age children and secondary school-age. Children of primary, as well as secondary school age, attend non-formal programs in most of the countries studied here, in some countries a significant portion. The table also includes the percentage of youth (age 15-24) and adults (25+) who list non-formal education as their highest attainment.

Non-formal school attendance

In about half of the 28 countries (depending on the measurement), non-formal education reaches less than 1% of the population; in others, the levels are small, from 1-5%. While non-formal may be an insignificant portion of the education system overall in these countries, it may be very important for the particular sections of the population that it reaches. In a number of sub-

Saharan countries, where levels of formal education are among the lowest in the continent, namely Burundi, Chad, Gambia, Guinea-Bissau, Niger, and Senegal, non-formal education attendance is high - between 5 and 30%. In addition, Myanmar has relatively high levels of non-formal education. If the non-formal education has a similar or equivalent level compared to formal programs, the enrolment and attendance rates in these countries are underestimated unless non-formal schooling is included.

Non-formal attendance is half or more of overall attendance in a few countries. In Burundi, 10% of the secondary school-age children were attending a non-formal program, equivalent to about two thirds of total secondary school attendance. In Chad, about 8% of both primary and secondary age children attend a non-formal program, and for secondary school-age children this represents half of all attendance in that age-group.

Non-formal education attainment

In general, the adults over 25 have higher levels of non-formal education attainment than youth 15-24. For example, Table 1 (page 5) shows that in Myanmar, only 4.4% of the youth 15-24 have non-formal education as their highest level; compared to 17.9% of the adults. One possible reason is that formal schooling has increased significantly in recent years, and for youth, has replaced non-formal education. Another possibility is that non-formal education in Myanmar is largely adult-focused, as in the form of adult literacy classes, remedial primary or secondary schooling, or job training.

Also, there is some indication that countries continue long traditions of commitment to non-formal education – the attendance rates of children in non-formal schooling mirror the non-formal attainment rates of the adults. This also suggests (albeit inconclusively) that for those people who receive non-formal education it is the last and highest education form.

Table 1. Non-formal school attendance and education attainment in 28 countries, measured by the non-formal attendance rate of primary school age children, secondary school age teenagers, and highest education attainment in non-formal for youth (15-24) and other adults (25+). Source: EPDC extractions from MICS 2000 datasets.

Country	Non-formal attendance rate (net)		Non-formal = highest educational attainment	
	Primary school age	Secondary school age	Age 15-24	Age 25+
Bolivia	-	-	1.6	1.7
Burundi	3.6	10.0	19.6	30.9
Cameroon	0.1	-	0.2	0.9
Central African Republic	0.2	0.2	0.2	0.3
Chad	8.7	7.9	8.3	8.0
Comoros	0.9	-	1.3	2.1
Congo, Dem Rep.	0.0	0.2	0.5	1.6
Cote d'Ivoire	2.0	-	2.6	1.7
Gambia	8.5	-	11.0	17.7
Guinea-Bissau	1.3	1.2	9.6	2.7
Guyana	0.0	0.2	0.4	0.4
Kenya	0.6	0.0	0.2	0.2
Lao PDR	-	-	0.3	1.4
Lesotho	0.1	0.2	0.1	0.1
Moldova	0.0	0.1	0.3	0.2
Myanmar	0.5	-	4.4	17.7
Niger	10.2	-	14.2	15.6
Rwanda	-	-	0.1	0.1
Sao Tome & Principe	-	-	0.0	0.1
Senegal	6.9	3.0	6.7	6.1
Sierra Leone	0.3	0.3	0.4	0.2
Sudan North	0.1	0.0	0.1	0.6
Sudan South	0.1	0.2	0.0	0.1
Swaziland	1.0	0.8	0.3	1.1
Tajikistan	0.0	0.2	0.3	0.4
Togo	0.0	0.0	0.7	2.0
Uzbekistan	0.0	0.1	0.0	0.1
Vietnam	0.4	0.2	0.5	1.2

Gender and urban/rural distribution of non-formal education

In most countries, males appear more likely to have non-formal education than females as shown in Figure 1, with the portion of household members with the highest attainment as non-formal education shown by sex for the 25+ age group. The one exception to this rule is Burundi. The gender pattern persists also for the attainment of 15-24 year olds and attendance rates (not shown).

Non-formal education is prevalent in both urban and rural areas. Figure 2 (page 7) shows the portion of household members age 25+ with the highest attainment of non-formal education by area. For a number of countries with relatively low to moderate overall levels of non-formal training, non-formal training is more prevalent in the urban regions; in those countries with

overall high levels of non-formal training, it is more prevalent in the rural areas.

As it turns out, the countries with extensive, more rural non-formal programs are the same ones where, as the next section shows, non-formal appears to be correlated with the same poverty levels as no schooling at all – indicating that non-formal education there is either of a very basic level, or that it selectively reaches people who will remain poor even with non-formal training. The next section also shows, in the same countries where non-formal is more prevalent in the urban areas, non-formal training is correlated with low poverty levels (approaching those of people with secondary education), suggesting that the more urban non-formal programs are of a higher training level.

Figure 1. Percentage of adults age 25+ with non-formal education as the highest level, by gender. Data from MICS 2000 surveys.

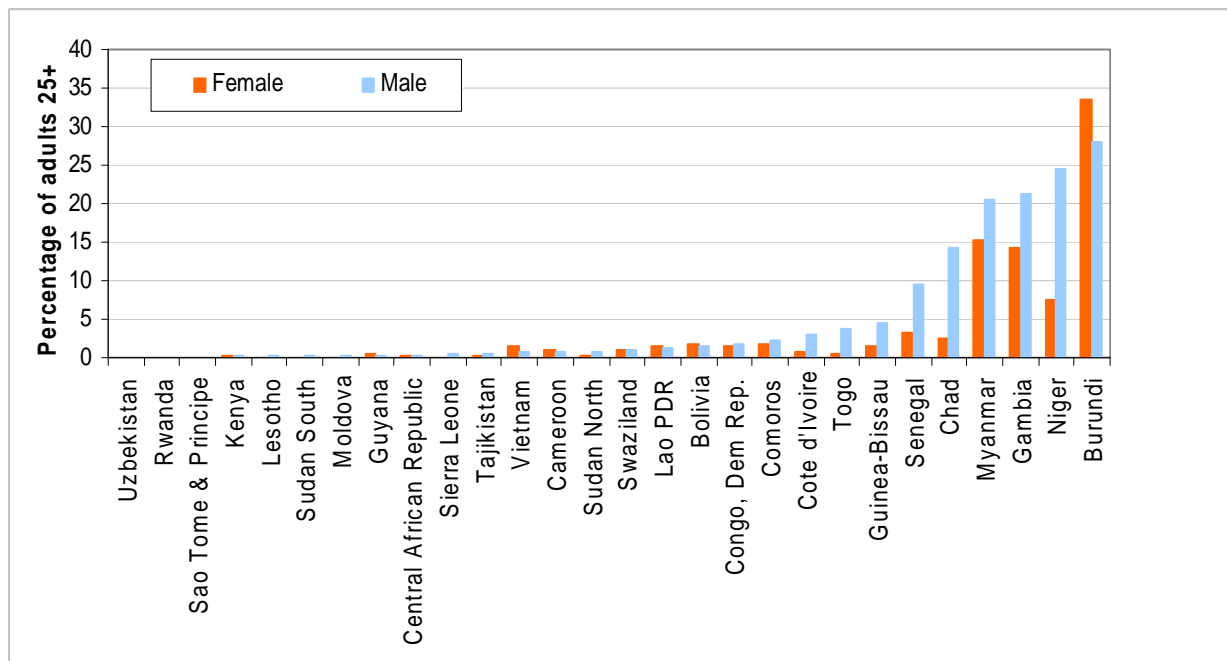
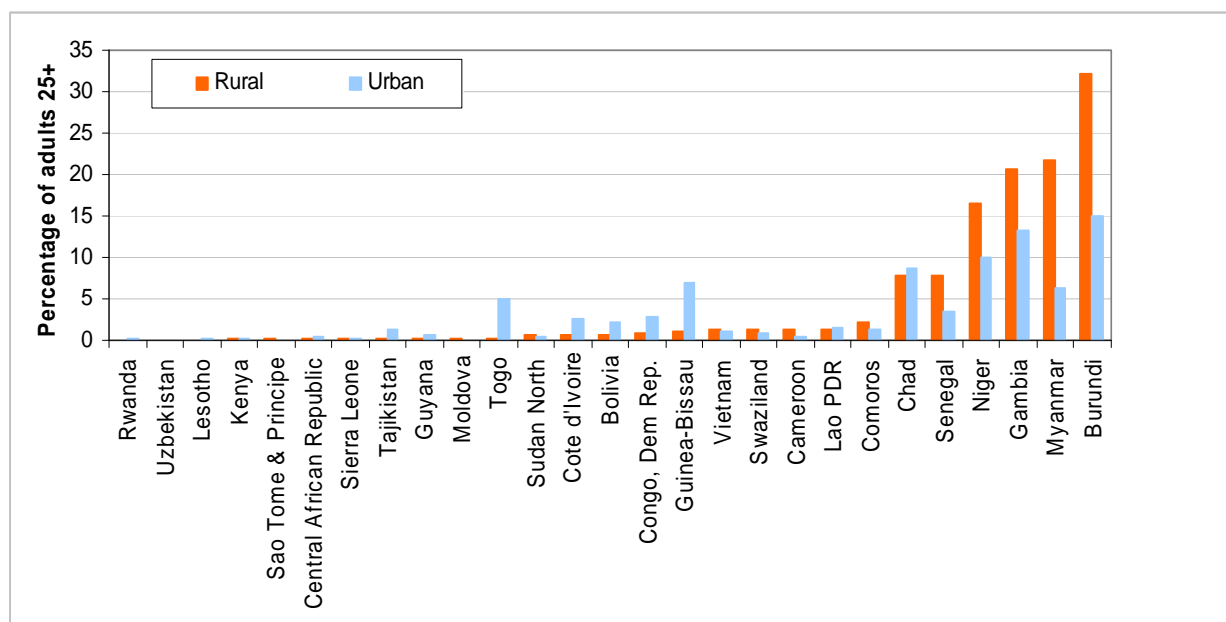


Figure 2. Percentage of adults age 25+ with non-formal education as the highest level, by urban and rural residence. Data from MICS 2000 surveys.



RELATION OF NON-FORMAL EDUCATION TO HOUSEHOLD WEALTH

As mentioned, the category of programs that fall under non-formal education can cover a wide range. The MICS surveys provide no further detail as to the contents. However, another indicator might provide insight - the outcome of education measured by income. For formal education, there is a well-established relationship between an adult's level of education and outcomes such as that person's income or wealth, occupation, and health (e.g. Basic Education Coalition, 2001; LeVine et al., 2001; Hannum and Buchmann, 2004; Wils, 2007). The same should apply to non-formal education – higher levels of non-formal education should correspond to higher income levels. An approximation of the “level” of the non-formal programs could be provided by comparing the income correlations with different levels of formal education to the income correlations with non-formal education.

To estimate income, the so-called wealth-index of the household, composed of various goods

owned and characteristics of the household's dwelling can be used. It is provided in the MICS datasets. This index, developed in the 1990s by Filmer and Pritchett (Filmer and Pritchett, 1999a, 199b, and 2001), is widely applied to approximate wealth. Using this index, households are divided into five wealth quintiles. The wealth measure used in this study is the probability of being in the lowest income quintile (lowest 20% of incomes).

Households are generally composed of multiple adults, and many households have multiple members providing income. But the MICS household surveys do not provide information on individual income; income and wealth are measured only by the household wealth index measure. That said, education levels within households are often correlated, so the education of one household member is an indication of the education of the other members. Probably the best measure of the education level of adult household members is the education level of the head of the household (also likely to be the primary income provider). This measure is used in this study. For the education categories, six categories are included: no education, non-

formal education, some primary, completed primary, some secondary, completed secondary.

Figure 3 shows the probability of being in the lowest income quintile by the six education attainment categories. The education levels are arranged from lowest (no schooling) to highest (completed secondary), with non-formal next to no schooling. Non-formal education is highlighted with a bolded circle; the other education levels are designated with small, orange triangles.

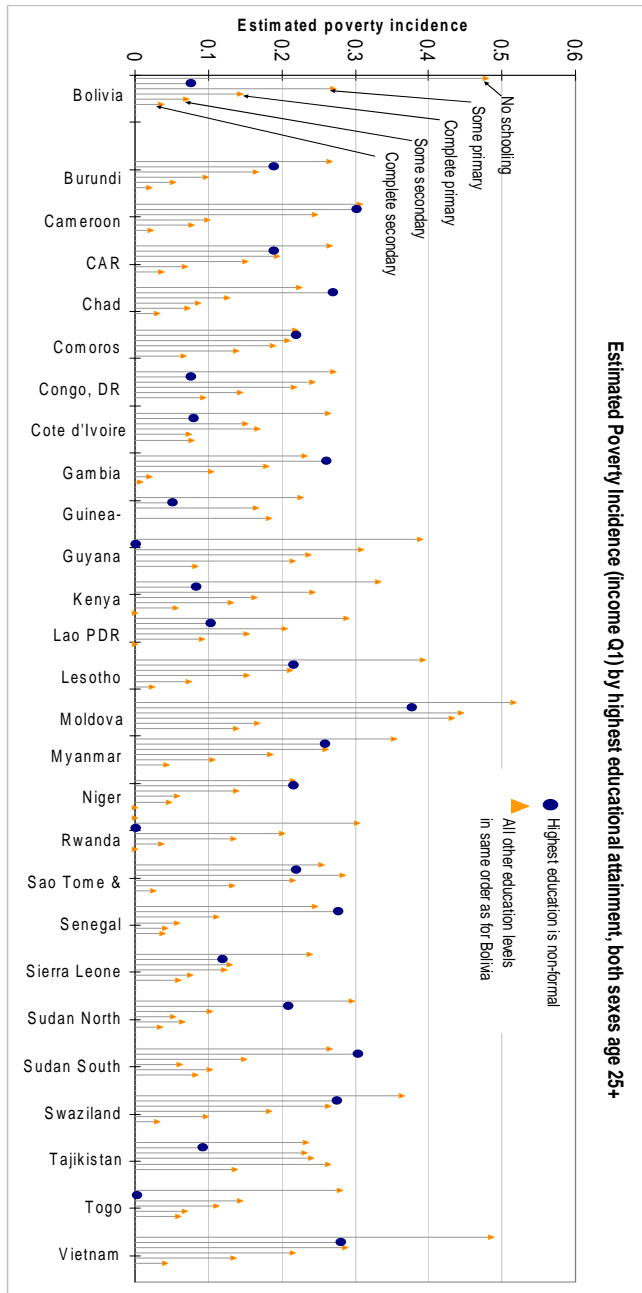
With regard to the formal education levels, there is a clear gradient of the probability to have a lower income - the higher the level of education attainment, the lower the poverty incidence. But with regard to non-formal schooling, there are clear differences from country to country.

In one group of countries non-formal education appears to be of a more professional, skilled level, complementing formal education – the probability of being in the lowest income quintile is equal to or lower than that of households headed by a person with secondary education: Bolivia, Democratic Republic of Congo, Cote d'Ivoire, Guinea-Bissau, Guyana, Kenya, Laos, Rwanda, Tajikistan, and Togo.

In a second group of countries the probability of being in the lowest income quintile for households headed by a person with non-formal education and households headed by persons with primary education is similar: Burundi, Central African Republic, Lesotho, Moldova, Myanmar, Sao Tome, Sierra Leone, Swaziland, and Vietnam.

Finally, in a third group of countries the probability of being in the lowest quintile for households headed by a person with non-formal education is close or equal to households headed by persons no schooling: Cameroon, Chad, Comoros, Gambia, Niger, Senegal, Sudan North and South. In these countries, the inference is that non-formal education is of a very basic level, and its effect on income is not clear.

Figure 3. Portion of households in lowest income quintile by level of education of the head of household. Education levels for each country arranged in order from no schooling, non-formal education, primary incomplete, primary complete, secondary incomplete, secondary complete and higher. Non-formal education highlighted in bold blue; formal education shown by orange triangles. Source: EPDC extractions from MICS 2000 datasets.



In Chad, the Gambia, Niger, Senegal, and South Sudan, the poverty incidence with non-formal schooling is even higher than for those with no education at all. Chad, the Gambia, Niger, and Senegal are at the same time countries where non-formal education is more prevalent. Why are these groups with non-formal education as poor or poorer as those with no education at all? One explanation is that non-formal schooling programs are specifically targeting very poor groups. Another possible explanation is that the non-formal programs are ineffective, at least, in delivering education and for removing poverty.

These comparisons provide only hypotheses for each country regarding the average level of non-formal training. A further, more field- and program-based analysis could investigate a number of these countries, and confirm whether, indeed, the non-formal programs in these countries conform to the levels hypothesized here. If the results were consistent with the hypotheses for a number of countries, one might venture to extrapolate it to other countries, and use wealth outcomes as an indication of non-formal program content.

CONCLUSIONS

The scale of non-formal education is small in most of the 28 countries, both measured as a form of attendance and as a form of highest education attainment. Significant non-formal education levels – above 5% in one or more of the four measures - are found only in Burundi, Chad, the Gambia, Guinea-Bissau, Myanmar, Niger, and Senegal. In an additional six countries, non-formal education levels are between 1-5% in at least one measure, and in the remaining 15 countries, they are less than 1% by all measures. This means, in general, non-formal education is not significant at the national level,

although it may be extremely important for certain target groups.

In those countries where non-formal education attendance is more prevalent, non-formal attendance is higher at primary school-age, and a little less so at the secondary school-age. An exception is Burundi, where more people of secondary school-age attend non-formal schools than of primary school age (10% as opposed to 4%).

Regarding non-formal as the highest educational attainment, it is more common among older adults and among men. In the seven countries with the highest non-formal education levels, it is more common in the rural areas.

The EPDC used wealth outcomes by education level to estimate the impact of non-formal education programs. The findings show that there is a wide range of non-formal schooling levels, from being equivalent to no schooling at all (at least in the income effect) to being equivalent to primary school and to secondary school or higher. In countries where non-formal is more equivalent to secondary schooling, it is more common in the urban areas; in countries where it is more equivalent to no schooling or primary, it is predominantly a rural form. In four of the seven countries with the highest prevalence of non-formal education, the poverty rate of those with non-formal education is equal to or higher than those with no schooling at all (Chad, the Gambia, Niger, and Senegal). It is possible this result comes from the specific targeting of highly marginalized groups (say in remote, rural areas), or that the wide-spread non-formal education in these countries is not effective at providing skills needed to rise above poverty.

REFERENCES

- Basic Education Coalition. 2001. *Teach a Child: Transform a Nation*. Basic Education Coalition: Washington, D.C.
- Education Policy and Data Center. 2007. Non-formal educational attainment. EPDC summary report for GMR. Background paper for EFA Global Monitoring Report 2008.
- Filmer, D., & Pritchett, L. H. 1999a. The effect of household wealth on educational attainment: Evidence from 35 countries. *Population and Development Review*, 25(1), 85–120.
- Filmer, D., & Pritchett, L. H. 1999b. Determinants of education enrollment in India: Child, household, village and State effects. *Journal of Educational Planning and Administration*, 13(2), 135–164.
- Filmer, D., & Pritchett, L. H. 2001. Estimating wealth effects without income or expenditure data—or tears: An application to educational enrollment in India. *Demography*, 38(1), 115–132.
- Hannum, E. and Buchmann, C. 2004. Global educational expansion and socio-economic development: an assessment of findings from the social sciences. *World Development*, Vol. 33, No. 3, pp. 1–22.
- LeVine, R. A., LeVine, S. E. and Schnell, B. 2001. Improve the women: mass schooling, female literacy, and worldwide social change. *Harvard Education Review*, Vol. 71, pp. 1–50.
- Macpherson, I. 2007. Tanzania: non-formal education. Country profile prepared for the *Education for all global monitoring report 2008: Education for all by 2015: will we make it?* UNESCO, Paris.
- Maruatona, T. 2007. Botswana: non-formal education. Country profile prepared for the *Education for all global monitoring report 2008: Education for all by 2015: will we make it?* UNESCO, Paris.
- Mitra, A. 2007. India: non-formal education. Country profile prepared for the *Education for all global monitoring report 2008: Education for all by 2015: will we make it?* UNESCO, Paris.
- Owusu-Boampong, A. 2007. Compilation of data on non formal education provision and policies. Country profile prepared for the *Education for all global monitoring report 2008: Education for all by 2015: will we make it?* UNESCO, Paris.
- Owusu-Mensah, Francis, Ghana: non-formal Education. Country profile prepared for the *Education for all global monitoring report 2008: Education for all by 2015: will we make it?* UNESCO, Paris
- Sabur, Zia Us. 2007. Bangladesh: non-formal education. Country profile prepared for the *Education for all global monitoring report 2008: Education for all by 2015: will we make it?* UNESCO, Paris.
- Schultz, P.T. 2002. *Why Governments Should Invest More to Educate Girls*. *World Development*, Vol. 30, No. 2, PP. 207-25.
- Siltragool, W. 2007. Thailand: non-formal education. Country profile prepared for the *Education for all global monitoring report 2008: Education for all by 2015: will we make it?* UNESCO, Paris.
- Swann, C. 2007. Malawi: non-formal education. Country profile prepared for the *Education for all global monitoring report 2008: Education for all by 2015: will we make it?* UNESCO, Paris.
- UNESCO Institute of Statistics (UIS) and United Nation's Children Fund (UNICEF), 2005, *Children Out of School: Measuring Exclusion from Primary Education*. UNESCO Institute of Statistics, 2005. Montreal. Obtainable from internet at: http://www.uis.unesco.org/template/pdf/educgeneral/OOSC_EN_WEB_FINAL.pdf on November 12, 2007.

United Nation's Children Fund (UNICEF), 2007, "Appendix Three, Instructions for Interviewers". Obtainable from internet at: <http://www.childinfo.org/mics/mics3/manual1.php> on November 12, 2007.

Wils, A. 2007. Window on the Future: 2025 Projections of Education Attainment and its Impact. Education Policy and Data Center, Washington, DC, USA.

Zúñiga Castillo, M. and Angulo, J. 2007. La Educación básica no formal en el Perú. Country profile prepared for the *Education for all global monitoring report 2008: Education for all by 2015: will we make it?* UNESCO, Paris.

ABBREVIATIONS

DHS	Demographic and Health Surveys
EPDC	Education Policy and Data Center
GMR	Global Monitoring Report
MICS	Multiple Indicator Cluster Survey
UNICEF	United Nations Children's Fund

DEFINITIONS

Children of primary school age = the total number of children who are of the ages in the primary school age interval.

Children of secondary school age = the total number of children who are of the ages in the secondary school age interval.

Primary school age = the age between the official age to start school, and the official age to end primary school (official start age plus number of grades in primary school).

Secondary school age = the age between the official start age for secondary (the last official age of primary school plus one), and official age to end secondary school (the official start age for secondary plus the number of grades secondary school).