

# The Costs and the Funding of Non Formal Literacy Programmes in Brazil, Burkina Faso and Uganda

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## Acronyms

A3F	Apprentissage du français fondamental et fonctionnel
ADEA	Association for the Development of Education in Africa
AI	Alphabetisation initiale
AIR	Assumed Intake Ratio
ARED	Association for Research and Education for Development
CONFINTEA	International Conference of Adult Education
CPAF	Permanent Training and Literacy Centers
CSO	Civil Society Organisation
CSR	Corporate Social Responsibility
CST	Formation culturelle, scientifique et technique
DAC	Development Assistance Committee
EFA	Education for All
EFAG	Education Funding Agency Group
ESIP	Education Strategic Investment Plan
EU	European Union
FAL	Functional Adult Literacy
FCB	Formation complémentaire de base
FONAENF	Fonds pour l'alphabétisation et l'éducation non formelle
FTI	Fast Track Initiative
FTS	Formations techniques spécifiques
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
GIR	Gross intake Ratio
GMR	The Education for All Global Monitoring Report
GNI	Gross National Income
GNP	Gross National Product
HDI	Human Development Index
HIV/AIDS	Human Immunodeficiency Virus / Acquired Immunodef. Syndrome
IBGE	Instituto Brasileiro de Geografia e Estatística
ICT	Information and Communication Technology
INEP	National Institute for Educational Research
INSD	Institut National des Statistiques et de la Démographie
LAMP	Literacy Assessment and Monitoring Programme
LIFE	Literacy Initiative for Empowerment
LitNet	Literacy Network for Uganda
LLECE	Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación.

MDG(s)	Millennium Development Goal(s)
MEBA	Ministère de l'Enseignement de Base et de l'Alphabétisation
MEC	Ministry of Education (Brazil)
NALSIP	National Adult Literacy Strategic Investment Plan
NER	Net Enrolment Ratio
NFLI	National Functional Literacy Index
NGO	Non-governmental Organisation
NIR	Net Intake Ratio
NSDS	National Service Delivery Survey
ODA	Official Development Assistance
PAS	Solidarity in Literacy Programme (Alfasol)
PASEC	Programme d'analyse des systèmes éducatifs de la CONFEMEN
Pc	Per capita (in relation to GDP or GNP)
PDDEB	Programme Décennal de Développement de l'Éducation de Base
Planfor	National Worker Qualification Plan (Brazil)
Pronera	National Education Program in the Land Reform (Brazil)
REFLECT	Regenerated Freirean Literacy through Empowering Community Techniques
SACMEQ	Southern African Consortium for Monitoring Education Quality.
SAEB	System for the Evaluation of Basic Education
SECAD	Secretariat of Continuing Education, Literacy and Diversity
UBOS	Ugandan Bureau of Statistics
UIE	Unesco Institute for Education
UIS	UNESCO Institute for Statistics
UIL	UNESCO Institute for Lifelong Learning (formerly UIE)
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNHS	Uganda National Household Survey
UNICEF	United Nations Children's Emergency Fund
UPE	Universal Primary Education
US\$	United States Dollar
YAE	Education for Youth and Adults

## Executive Summary

Many developing countries are nowadays designing national policies to reduce the number of illiterates and trying to mobilize the financial resources needed to implement them. The aim of this report is to assist in this process. It evolves around two key tools that can be used by policy makers and planners in education and literacy:

- An analytical framework to monitor the development of the number of adult illiterates, based on trends in adult literacy policy, primary education, demography, literate environment and migration. A key message of this report is that all these trends need to be well considered for a realistic picture of the policy challenge.
- A normative model for estimating the costs of literacy programmes - both per enrolee and at local and national level - based on a small set of parameters or norms that good, cost-effective programmes should meet. On the website of the UNESCO Institute for Lifelong Learning (UIL), the reader can find interactive spreadsheet-files in which s/he can alter the parameters of the normative model in order to tailor it to national and local needs and insights.

Both tools are applied in this report to three countries selected by the UIL: Brazil, Burkina Faso and Uganda. These countries are multi-lingual, albeit in different degrees, have large absolute numbers of illiterates, and have demonstrated an ambition to combat illiteracy. All three participate in the Literacy Initiative for Empowerment of UNESCO.

Chapter 2 provides a first stock-take of the absolute numbers of illiterates in the three countries: around 15 million in Brazil, around 5 million in Burkina Faso, and around 4 million in Uganda (2000-2004). The picture changes if we look at relative numbers. In Brazil the lit-

eracy rate is 88 per cent: meeting the EFA Goal<sup>1</sup> means that it must rise to 94 per cent. Uganda must go from 69 to 84 per cent, and Burkina Faso from 13 to 56 per cent. Chapter 2 also presents the normative model, to be adapted later in the report.

Chapter 3, takes a look at factors that influence the number of illiterates in the three countries. It does so with the help of the analytical framework, which sees the number of illiterates in a country as a "stock" that is permanently influenced by a number of inward and outward "flows".

A first analysis concerns the stock. Against the backdrop of short characterizations of the countries, breakdowns of literacy statistics are provided by region, locality (urban versus rural), gender and age. These breakdowns point to some extremely low literacy rates in parts of the countries, especially for women. In some districts of Burkina Faso, so few people are literate that it could be hard to create a momentum towards more literate communities. A problem in this analysis is the use of different standards and criteria - even within countries - for being literate.

An important inward flow into the stock of illiterates consists of the many children that do not go to school, especially in Burkina Faso, and the many, who drop out, especially in Uganda. In all three countries there are concerns about learning achievement.

Another inward flow consists of literate adults who lose the ability to read and write as they do not use these skills. This risk is serious in Burkina Faso and Uganda where very few people have access to books and newspapers, especially in indigenous languages. Ageing illiterates will at some point leave the stock of illiterates, thereby reducing illiteracy.

<sup>1</sup> The literacy target formulated at the EFA conference in Jomtien in 1990 is to halve the illiteracy rate. For reasons explained in chapter 2 we prefer this to the target formulated in the Dakar Framework of Action, which was to improve literacy rates by 50 per cent.

However, Burkina Faso and Uganda have very high fertility rates. This means that as long as many children do not complete school, the number of illiterate children that enter the stock of illiterates outnumber the elderly people that leave it, maintaining an immanent tendency for the stock of illiterates to grow from year to year. With a much lower fertility rate, Brazil has a much better chance to achieve the EFA Goal.

Chapter 3 concludes that the usual scepticism regarding the scale and impact of literacy policies would be misplaced in the case of the three countries. In Brazil and Uganda, enrolment levels in government programmes would probably suffice, if only the quality were better. The duration of the programmes seems too short to really achieve the skills, and many participants enjoyed prior enrolment in primary education or in an earlier program. In Burkina Faso, by contrast, the joint capacity of literacy programmes is far too limited in face of the enormous challenge, but the country has a good policy infrastructure that deserves to attract more funding. Burkina Faso, like Uganda, also has a tradition in teaching literacy in indigenous languages.

Chapter 4 re-examines the normative model informed by the findings of chapter 3 and by recent insights. The following variants are proposed for the unit costs of literacy programs:

- The Standard Variant which assumes programmes with a duration of 400 hours; a group-size of 20; a remuneration of the instructor comparable to that of a primary school teacher in the same country; and a non-salary cost component (mainly overhead) of 30 per cent of total costs.
- The Volunteering Variant, in which the reward for the instructor is reduced to 20 per cent of the Standard Variant.
- The Cross-Sectoral Variant, with a longer duration than that of the Standard Variant, which is needed for the acquisition of livelihood or other skills. These programmes can be financed jointly with other stakeholders such as employers or ministries of labour, agriculture or social development. For each variant, we also differentiate by age and locality (urban versus rural).

In chapter 5 we apply each of these variants to the numbers of illiterates in the three countries. This results in overall estimates of the costs needed to train the illiterates, broken down by region, gender and age. These outcomes are derived from the interactive spreadsheet-files posted on the website of UIL. The parameters of the Standard Variant would yield annual costs of halving illiteracy by 2015 in the order of US\$139 million in Brazil, US\$16 million in Burkina Faso, and US\$8 million in Uganda. The use of volunteer teachers would roughly halve those costs. All this concerns only the present numbers of illiterates and does not include the many children growing up illiterate in coming years, especially in Burkina Faso and Uganda.

Chapter 6 stresses the importance of mother tongue literacy and highlights cost-effective strategies to strengthen the literate environment. Innovative approaches to funding – the subject of chapter 7 – are found in Brazil (co-funding arrangements), in Burkina Faso (a national fund for literacy) and Uganda (using Poverty Action Funds).

## Introduction

What are the costs of achieving the Jomtien /Dakar Goal on literacy? In an attempt to provide an answer to this question, we have developed a normative model, i.e. a model that could guide the planning of literacy programmes anywhere and that would enable national and local circumstances to be taken into account<sup>2</sup>.

The aim of this report commissioned by the UNESCO Institute for Lifelong Learning (UIL) is to test and apply our approach and the normative model in Brazil, Burkina Faso and Uganda. The three countries are multilingual in various degrees, and differ in terms of educational development, literate environment and socio-economic development.

For this report we developed two tools that can be used by policy makers in general:

- An analytical framework that enables policy makers to monitor the development of the “stock” of adult illiterates based on trends in literacy policy, primary education, demography, literate environment and migration.
- An interactive spreadsheet-file for cost estimations in which the parameters of the normative model can be altered by the reader, to tailor it to local needs and insights.

Chapter 2 presents the normative model and indicates what its outcomes would be for the three countries, if we applied it regardless of specific circumstances. It also contains a critique of the model and a reflection on the Jomtien and Dakar targets. Chapter 3 then presents the analytical framework, and uses it for an in-depth “diagnosis” of the situation in the three countries. This chapter is rather elaborate since it is critical for our analysis to

do justice to the specific circumstances and policies in the three countries, also at sub-national level. In chapter 4, the normative model is adjusted in response to the outcomes of the country diagnosis and other recent insights. Chapter 5 then applies the adjusted normative model to the countries, based on an interactive spreadsheet-file (Aggio and van Ravens, 2007). This file can be found on the UIL website and enables the reader to change the assumptions we made. In this manner, the reader can “customize” the analysis based on his/her own insights. Chapter 6 discusses ways to invest in the literate environment, while the sources for financing literacy policies are the subject of chapter 7. Conclusions and recommendations are in chapters 8 and 9.

In this report, we wish to avoid extensive discussion about the validity of literacy data<sup>3</sup>. This report relies primarily on countries’ own official data, but uses additional sources whenever these allow us to deepen our understanding. A crucially important additional source is the UNESCO Institute for Statistics (UIS), because their data enable us to make international-comparative analyses.

<sup>2</sup> Even so it remains difficult to do full justice to the large variety of paradigms that exists in the area of adult literacy (Street, 2004) including the more critical strands of thinking that call for very contextualized or ‘embedded’ approaches. Sometimes these approaches defy evaluation based on tests and pass rates, and they may be difficult to plan and cost at national level.

<sup>3</sup> The background document for this report (Van Ravens and Aggio, 2007) elaborates on data-issues.

## 2. A preliminary assessment based on the normative model

### The numbers of adult illiterates to be trained

The three countries of this study, Brazil, Burkina Faso and Uganda, differ from each other on many dimensions. In particular, the scale of the challenge of reducing and eliminating illiteracy is different for each country, both in absolute numbers and as a proportion of the total population. Brazil has a relatively high literacy rate, almost 90 per cent, but still has to address more than 14 million people in order to eradicate illiteracy in the country. Burkina Faso reports only some 5 million illiterates, but they form nearly 90 per cent of the adult population. Only 13 per cent are literate, i.e. fewer than one million. Thus the challenge for this country is enormous. However, the relatively small number of illiterates suggests that finding the financial and material resources required would not be insurmountable for donor organi-

zations. Finally, in Uganda has about 4 million illiterate adults, who form about one third of the adult population (see Table 2.1).

Table 2.1 also illustrates the difference between the formulation of the Jomtien Goal and that of the Dakar Goal. To halve illiteracy (Jomtien) is not the same as to increase literacy levels by 50 per cent (Dakar). For countries with literacy rates lower than 50 per cent, the Jomtien formula is more challenging than the Dakar formula, and vice versa. The EFA Global Monitoring Report (GMR), the most authoritative report in this regard, has taken different positions in the past. Its 2003/4 edition<sup>5</sup> considered the heavy burden that the Jomtien formula placed on low literacy countries to be 'unfortunate' and preferred the Dakar formula. The 2006 edition of the GMR, however, explicitly chose to prefer the Jomtien formula<sup>6</sup>.

Table 2.1. Numbers of literates and illiterates, and the challenges under Jomtien and Dakar.

Country	Adult Illiteracy Rate 2000-04	Adult Literacy Rate 2000-04	Adult Illiterates 2000-04	JOMTIEN Challenge		DAKAR Challenge	
				Target literacy rate	Number of Illiterates to be attended (000)	Target literacy rate	Number of Illiterates to be attended (000)
Brazil	11.6	88.4	14,870	94.2	7,434.9	100.0	14,869.9
Burkina Faso	87.2	12.8	4,726	56.4	2,363.2	19.3	348.4
Uganda	31.1	68.9	3,889	84.4	1,944.5	100.0	3,889.0
Developing countries* (122)	22.0	78.0	742,196	89.0	371,098	92.7	557,681

Notes: \* All rates for these groups of countries are averages.

Kindly note that the EFA Global Monitoring Report is usually referred to in this report by its acronym GMR, followed by the relevant edition, e.g. GMR-2006

<sup>5</sup> See box 2.11 on page 88 of the 2003/4 edition of the GMR.

<sup>6</sup> See box 2.3 on page 66 of the 2006 edition of the GMR.

We tend to support this choice, mainly because of the moderate demands that the Dakar formula places on low literacy countries. Burkina Faso, which has one of the world's lowest official literacy rates, illustrates this point. The very low present level of literacy (12.8 per cent) would increase to only 19.3 per cent in 2015, if the Dakar formula is followed. It is difficult to understand how an EFA target can be considered met if four out of five adults remain illiterate. Admittedly, the Jomtien target of 43.6 per cent will be very difficult for Burkina Faso to meet. But if the country cannot achieve it by itself, then by setting this demanding target it could alert the international aid community to its needs.

Indeed, Burkina Faso and Uganda have in practice adopted the Jomtien formula. In contrast, Brazil has chosen not to halve illiteracy but to eradicate it, which is in accordance with the Dakar formula. The reason is that Brazil is already more advanced than Burkina Faso and Uganda. With Universal Adult Literacy so close in sight it has galvanised the political will to achieve it within a limited number of years. Clearly, this is a choice that deserves to be respected. We resolve this in this paper by, on the one hand, following the GMR's choice of adopting the Jomtien formula as the reference point, while on the other hand respecting countries' own targets.

## 2.2 Unit costs

In order to translate the numbers of people to be trained into overall cost estimates, assumptions are needed on 'unit costs', i.e. the money needed for one adult to enrol in a literacy class. In a commissioned paper for the GMR (van Ravens and Aggio, 2005), we took six steps to arrive at normative unit costs, which we summarize here very briefly:

a. First we focused on remuneration, since the salary costs of teachers and instructors are usually the main cost component in education and training. The experience in adult literacy is that instructors are often insufficiently paid, so as a first norm we assume that literacy instructors receive a financial compensation per hour that is comparable to that of primary school teach-

ers in the same country. (Many literacy instructors work only part time and/or during just a part of the year, but this does not invalidate the calculation as we shall see).

b. More in particular, we assumed that the annual salary of primary school teachers in sub-Saharan Africa equals 5 times the annual income per head of the population (i.e. per capita GNP or pcGNP. For Asia and the Arab States we assumed that the annual salary is 3 times pcGNP, and for Latin America the factor is assumed to be 2.5. All this is inspired by findings by Mingat, quoted in the 2006 edition of the EFA Global Monitoring Report, page 165.

c. The next step concerns the numbers of hours that instructors work. Based on the literature we assume as a norm that the duration of literacy programs is 400 hours, and that the instructor needs another 50 hours per course for preparation and other activities. Since the number of hours of a working year is about 1800, one instructor can theoretically deliver 4 courses per year ( $450 \times 4 = 1800$ ).

d. Hence, the salary costs involved in delivering one course are 5pcGNP:4 in Sub-Saharan Africa. In Asia and the Arab States this is 3pcGNP:4 and in Latin America 2.5pcGNP:4. Note that this is regardless of the number of courses that teachers deliver in practice. An NGO may have full time 3 teachers delivering 4 courses per year, or 6 part time teachers delivering two, but in either case 12 courses are delivered against the same costs.

e. In order to arrive at the salary costs per participant, we need to divide the formula found in step d. by the total number of participants per course. Again based on study of the literature on program effectiveness, we put forward as a norm that groups of learners are no larger than 20. Thus, the salary costs per participant are 3pcGNP:4:20 in Sub-Saharan Africa, while the first factor in this formula is still 3 in Asia and the Arab States and 2.5 in Latin America.

f. The last step is to go from just salary costs to total costs (per participant), thus including overhead costs, R&D, preparation, training of instructors, and learning materials.

The literature on adult literacy does not provide adequate information to make this step, since the costs of the various components are usually reported in absolute amounts, unrelated to pc-GNP. As an alternative reference point we used an indicator titled ‘primary teachers salaries as % of public current expenditure on primary education’ (GMR-2005, annex Table 14). The data are too patchy to calculate regional means, but if we focus on SSA and India, we find a rather stable impression that salary costs make up around 85-90% of all costs. This level, however, is generally considered to be too high, since it leaves insufficient room for schools to purchase learning materials and to maintain the building and equipment (UNESCO, 2004:164). Indeed, the share of teachers’ salaries tends to be lower elsewhere, and much lower in developed and transition countries; the only regional mean that is available is the one for North America and Western Europe, which stands at 66.8%. Given the more complex and contextualized nature of literacy programs (compared to primary education) we propose a norm close to the value for primary education in rich countries: 70%.

At this point in the exercise we need to make a side-step. One could ask the question whether this norm is sufficiently in accordance with empirical findings. A study by the Global Campaign for Education and Action Aid (2005) and also findings of Nortveit (2004) suggest that it is not: in those programs for which the salaries’ share of total costs is known, it is often lower than 70% and seldom higher. However, in several cases this seems to be a result of the use of volunteer teachers and/or educational technology, and for these programs we will develop a special approach later in this report. In other cases, the duration of the course may be shorter than 400 hours, or a large share of the budget may be spent on management and overhead, especially if foreign staff is involved. (Abadzi, 2003). In this light, we wish to emphasize the normative nature of our model. We did not look primarily for existing examples

of unit costs in order to simply calculate their average, but we looked at the literature in order to establish how high or low unit costs should be. It may be true that many courses are too short, that many teachers are poorly paid and that management is often inefficient, but it is not desirable. By setting norms in these regards, we avoid on the one hand programs of sub-critical quality, and on the other hand programs that are unnecessarily expensive and hence reduce the number of beneficiaries that can be served on a given budget<sup>7</sup>.

Special attention must be given to the issue of scale. Literacy curricula and materials need to be locally relevant, and preferably developed in close collaboration with the learners (Ouane and Glanz, 2005). This calls for small scale, contextualized programs. However, to train large numbers of people on a limited budget requires economies of scale, which would seem to call for mass programmes of a more standardized nature. We think the answer to this dilemma lies in small-scale programmes strongly tuned to local needs that are nevertheless part of a broader approach, paradigm or organization. This way, the program can benefit from the experience and knowledge gained by many actors, over many years. An important example are programmes under the aegis of REFLECT, now common to many countries. The functional literacy programmes of Uganda are another example. All things considered, we think it is defensible to “enforce” economies of scale by limiting the non-salary costs to 30% of total costs. Small scale programs with high development costs will always remain necessary as breeding grounds for innovation, but these programs alone will not bring literacy to hundreds of millions of people in developing countries.

Thus assuming that salary costs make up 70% of total costs, we can now complete the calculations. Table 2.2 presents (i) the full formulae for the regions, (ii) the unit costs for the three countries expressed in US\$, and the total Jomtien challenge.

<sup>7</sup> In our original exercise, we “tested” the outcomes of our model against all empirical unit costs that we could find in the literature. It appeared that our model “predicts” the unit costs relatively well, once we delete high outliers (possibly small-scale inefficient programs) and low outliers (volunteering).

Table 2.2: Unit costs and total Jomtjen challenge for Burkina Faso, Uganda and Brazil

Region / country	Unit costs in pcGNP	Simplified	Unit Costs	Jomtjen
Sub-Sah. Africa	5pcGNP:4:20x100/70	8.9% of pcGNP		
- Burkina Faso			31 US\$	73 mln
- Uganda			22 US\$	43 mln
Asia & Arab States	3pcGNP:4:20x100/70	5.3% of pcGNP		
Latin America	2.5pcGNP:4:20x100/70	4.4% of pcGNP		
- Brazil			134 US\$	996 mln

Table 2.2 illustrates clearly how unit costs depend on the per capita GNP (or average income levels) of the countries. This is important because just like average income, the prices are also much higher in Brazil than in Burkina Faso and Uganda, which means that the Brazilian instructor must earn more (expressed in dollars) in order to have the same purchasing power as his or her colleagues in the two other countries. Other things needed for literacy programmes, such as materials, furniture and buildings are usually produced locally and therefore they are also more expensive in richer countries than in poorer countries. Foreign staff and imported materials are exceptions to this rule, and this is precisely the reason why literacy programs should rely on local resources as much as possible if we want to make substantial progress on limited budgets. Thus, we believe that one standard unit cost of, say, US\$75 for the entire world is absolutely inadequate: it is too little for Brazil, and unnecessarily expensive for the two African countries. In chapter 4 we will re-examine these normative unit costs in light of our analysis of the three countries and more recent insights. This will also lead to the adoption of two extra unit cost “variants”

Finally, we need an assumption on the percentage of the enrollees that completes the course and passes the test successfully. We propose to assume a pass rate of 75%. This is high compared to many findings in the literature, but it is also clear from the literature that when low pass rates occur, it is usually associated with

short course durations, low remuneration, poor learning materials, et cetera. Since we have set some standards in these regards with a view to safeguard a minimum level of quality, we think it is defensible to assume a good pass rate. The pass rate will be taken into account at the very end of the chain of calculations, i.e. at the end of chapter 5.

### 2.3 Critique

The outcomes in Table 2.2 require adaptation if they are to be used to inform concrete policies at national or sub-national level.

- Investments per annum are unlikely to be equal throughout the remaining years of the Dakar period, because absorptive capacity will take time to grow, so that it will take some years before enhanced adult literacy policies come to fruition. And with every year in which the expenditure is lower than the annual average, the required investment for the remaining years will rise.
- The average investments per adult learner partly depend on political choices that are made. E.g. do governments prefer the strategy of ‘lowest hanging fruit’, initially targeting those that are easiest to reach and to train, and thus making the biggest numerical progress towards achieving the goal against the lowest costs? Or do governments accept slow numerical progress and higher costs initially, by addressing those with the

<sup>8</sup> In our original exercise, we also included two variants to the normative model (the Budget Variant and the Advanced Variant) but these are of limited relevance here.

highest needs, usually found in areas, groups and communities where so few individuals are literate that a momentum towards higher literacy levels is difficult to create without enhanced efforts?

- To combine literacy training with the acquisition of life skills and income generation represents an important paradigm in contemporary thinking about literacy (Robinson-Pant, 2003). The aforementioned study by the Global Campaign for Education and Action Aid (2005) adopts as a rule of thumb that

this would typically require a ‘third year’ added to a two year literacy programme, while all of the three years are assumed to have roughly equal costs. Yet many programmes that combine literacy with life skills do so in a more integrated and possibly more cost-effective way.

As said, the outcomes in table 2.2 are just the baseline for this study. We will now try to arrive step by step at a greater degree of specificity. We first present the analytical framework before zooming in on the literacy situation and policies in the three countries.

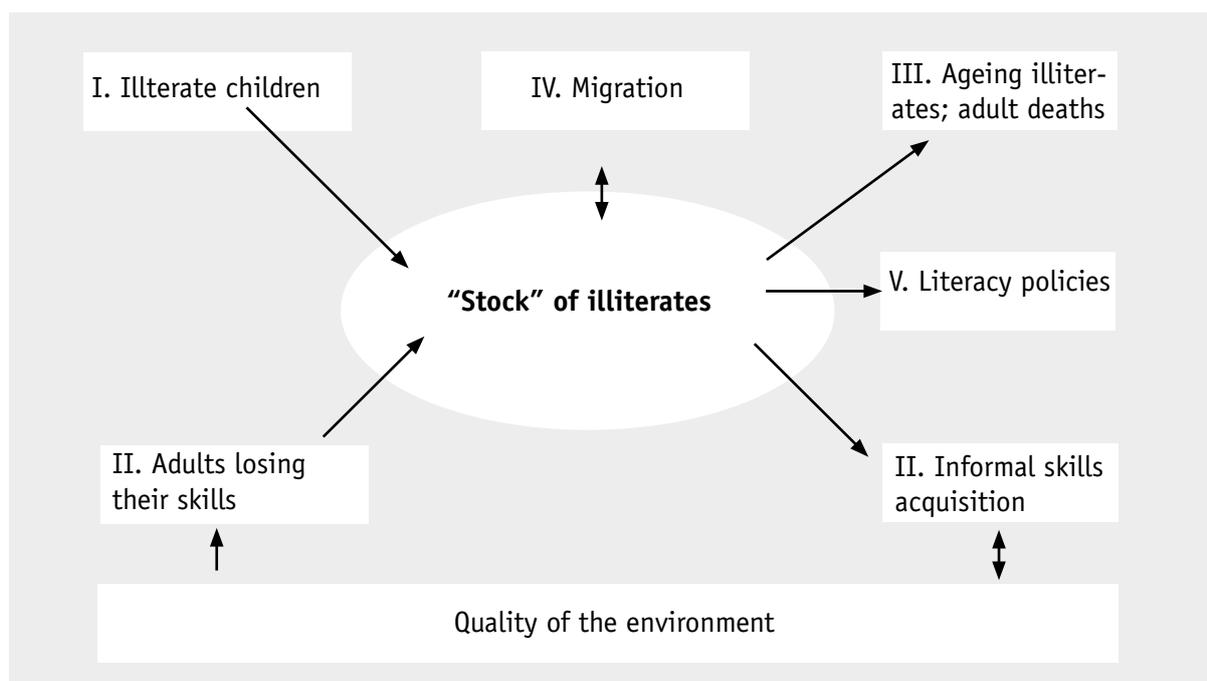
### 3. Literacy in Brazil, Burkina Faso and Uganda: a diagnosis

In this chapter we assess the literacy situation in the three countries. We look at the numbers of illiterates that need to be trained if Goal 4 is to be achieved, while focusing, as much as data allow us, on illiterates in special circumstances, including multilingual contexts. We also examine current education and literacy policies. First we present an analytical framework, then we discuss its respective elements for each of the countries.

#### 3.1 Analytical framework

The analytical framework is based on the economic concept of ‘stock and flow’. The idea is that the number of illiterates that find themselves in a certain country at a given moment can be seen as a ‘stock’. As figure 3.1 illustrates, the size of that stock is influenced by five inward and/or outward flows:

Figure 3.1. Analytical framework



Source: Authors of this paper

Children who never went to school or left school illiterate will enter the stock of illiterates at age 15, since the age bracket for adult literacy rates is 15-65.

- Literates may lose their skills if they don't use them sufficiently. They too will enter the stock. This is the result of a poor 'literate environment'. Conversely, people may acquire literacy skills informally in a richer literate environment and exit the stock.
  - Ageing illiterates leave the stock as they pass the age limit of 65 years, or decrease (particularly in countries with lower life expectancies).
  - Migration affects the size of the stock when illiterates leave or enter the country.
- Finally, literacy policies and programmes can reduce the stock of illiterates.

We will now address each of the elements of the analytical framework - first the stock, and then the five flows - for the three countries.

### 3.2 The stock: distribution and evolution of illiteracy

In this section we assess the distribution and evolution of illiteracy in the three countries

against the backdrop of their socio-economic and demographic characteristics.

#### 3.2.1 Brazil – stock and distribution

With some 170 million inhabitants, Brazil has a multi-ethnic society composed of whites (53.6 per cent), people of African origin (45.3 per cent), people of Asian origin (0.6 per cent) and indigenous people (0.5 per cent). Brazil is also multilingual with as many as 188 living languages, but this linguistic diversity is concentrated in relatively small groups and regions, since 95 per cent of the population speak Portuguese. The percentage of people living in rural areas varies across the five regions from 10 per cent in the South East to 31 per cent in the North East.

The regional breakdowns of illiteracy rates appear in Table 3.1. There is the usual association between literacy and ethnicity, with an overall ten point gap between the 'white and yellow' and the 'Parda and black' groups. Remarkably small, however, is the gender-gap in Brazil: overall, the females have actually attained an advantage of one-third of one per cent, but persist with slightly higher rates of illiteracy in

Table 3.1: Adult illiteracy rates by region, gender, localization and race, 2000

Region	Total	Gender		Localization		Race/Colour	
		Male	Female	Urban	Rural	White and yellow	Parda and black
North	16.3	17.0	15.6	11.2	29.9	11.1	17.0
Northeast	26.2	28.3	24.2	19.5	42.7	19.5	27.6
Southeast	8.1	7.4	8.9	7.0	19.3	5.7	11.2
South	7.7	6.8	8.5	6.5	12.5	6.0	14.1
Centre West	10.8	10.8	10.8	9.4	19.9	7.5	12.7
Brazil	13.6	13.8	13.5	10.2	29.8	8.3	18.7

Source: IBGE, Censo Demográfico de 2000 ([www.ibge.gov.br](http://www.ibge.gov.br))

Table 3.2: Adult illiterate population and adult illiteracy rate (1900-2000)

Year	Population of 15 years or more		
	Total (000)	Number of illiterates (000)	Illiteracy rate (%)
1900	9,728	6,348	65.3
1920	17,564	11,409	65.0
1940	23,648	13,269	56.1
1950	30,188	15,272	50.6
1960	40,233	15,964	39.7
1970	53,633	18,100	33.7
1980	74,600	19,356	25.9
1991	94,891	18,682	19.7
2000	119,533	16,295	13.6

Source: INEP (2003).

the richer regions of the Southeast and South. The overall illiteracy rate of 13.6 per cent in 2000 and the absolute number of 16.3 million illiterates<sup>9</sup> are the outcomes of a gradual historical process of reduction of illiteracy as table 3.2 reveals.

According to Ferraro (2002) quoted by Masagao Ribeiro and Gomes Batista (2005), accelerations in the decline of illiteracy cannot be attributed to the great campaigns against illiteracy that were carried out throughout the century. Instead, all indications point to efforts to achieve universal primary and secondary education for children and adolescents, accompanied by programmes to correct the student flow and accelerate studies for those individuals who are overage for their grade level (CONFINTEA V mid-term review. Brazil Country Report, 2003).

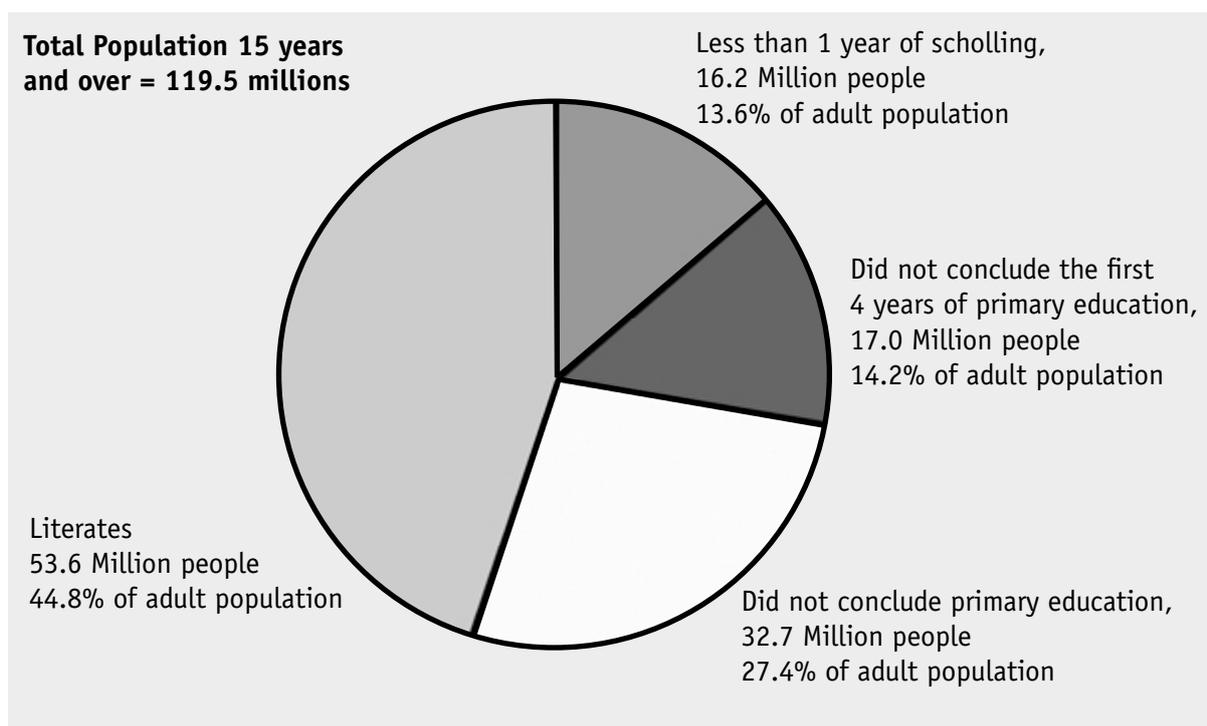
Table 3.2 also illustrates how the absolute number of illiterates can continue to rise even as the illiteracy rate declines. The explanation is that the expansion of primary education does not keep pace with population growth (see section 3.5 below on demographic factors). For Brazil, 1980 was the turning point. After that, even the absolute numbers of illiterates decreased.

The reported illiteracy rate of 13.6 per cent is based on self-report, i.e. on the answers that respondents themselves give when asked whether they can read or write a simple statement in their own language (IBGE, 2003, p. 32). This is certainly a 'light' definition of literacy in terms of the needs of a citizen in the 21st Century. If we add those who declare themselves literate but have not completed the first four years of primary schooling<sup>10</sup>, then the figure would go up to 27 per cent, as figure 3.2 shows.

<sup>9</sup> The 2007-edition of the GMR reports a rate of 11per cent and 15 million illiterates. This concerns the period 2000-2004, not the year 2000. Thus, the GMR is broadly in accordance with Brazil's own figures

<sup>10</sup> Primary education in Brazil consists of two cycles of four years each.

Figure 3.2. Population of 15 years and over, by 'literacy condition', 2000



Source: MEC/SECAD (2006)

It is also possible to assess adults' literacy skills directly. In Brazil this has been done since 2001 in the National Functional Literacy Index (NFLI). This reveals that only 25 per cent of the adults really do have full command over the various literacy skills that were tested. Another 37 per cent can find information in short texts, while the others have only rudimentary skills (30 per cent) or no skills at all (8 per cent). Similar outcomes were found for numeracy. It was deduced that 8 years of primary schooling would be a better benchmark for literacy than 4 years <sup>11</sup>.

The implication of this extremely ambitious benchmark would be that some 55 per cent of the Brazilian population (i.e. 66 million adolescents and adults) needed more training in literacy <sup>12</sup>. Most of these will likely reside in the rural areas of the North and North-Eastern regions.

For the purposes of this paper, however, we focus only those officially classed as illiterate.

### 3.2.2 Burkina Faso – stock and distribution

Burkina Faso is a much smaller country than Brazil, both in terms of population (13.1 million inhabitants) and surface area. The country has 45 provinces grouped in 10 regions.

With a GNP per capita of US\$250 in 2002, Burkina Faso is among the very poorest of all countries not affected by conflict. While its economic growth rate of 3 per cent is one of the better figures in the region, social indicators remain slow to improve. Agriculture is the most important source of income, and the vast majority (about 84 per cent) of the population continue to live in rural areas.

The 1996 census reported an overall literacy rate of 19.5 per cent, with 12.8 per cent for women (see Table 3.3). However, in 2000-2004, despite a relatively high population growth rate and far from universal primary education, the adult literacy rate had risen to 22 per cent.

<sup>11</sup> For a more in-depth discussion about the validity and comparability of literacy data in general, we refer to the background paper by van Ravens and Aggio (2007)

<sup>12</sup> These figures includes functional illiterates (27.8% of adult population) and all those who have not finished 8th grade (27.4%)

Table 3.3: Literacy and illiteracy rates (10 years and older) by gender and localization, 1996.

	Burkina Faso			Urban			Rural		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Literacy rate	19.5	26.6	12.8	56.6	66.6	46.2	13.2	20.1	8.6
Illiteracy rate	80.5	73.4	87.2	43.4	33.4	53.8	86.8	79.9	91.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

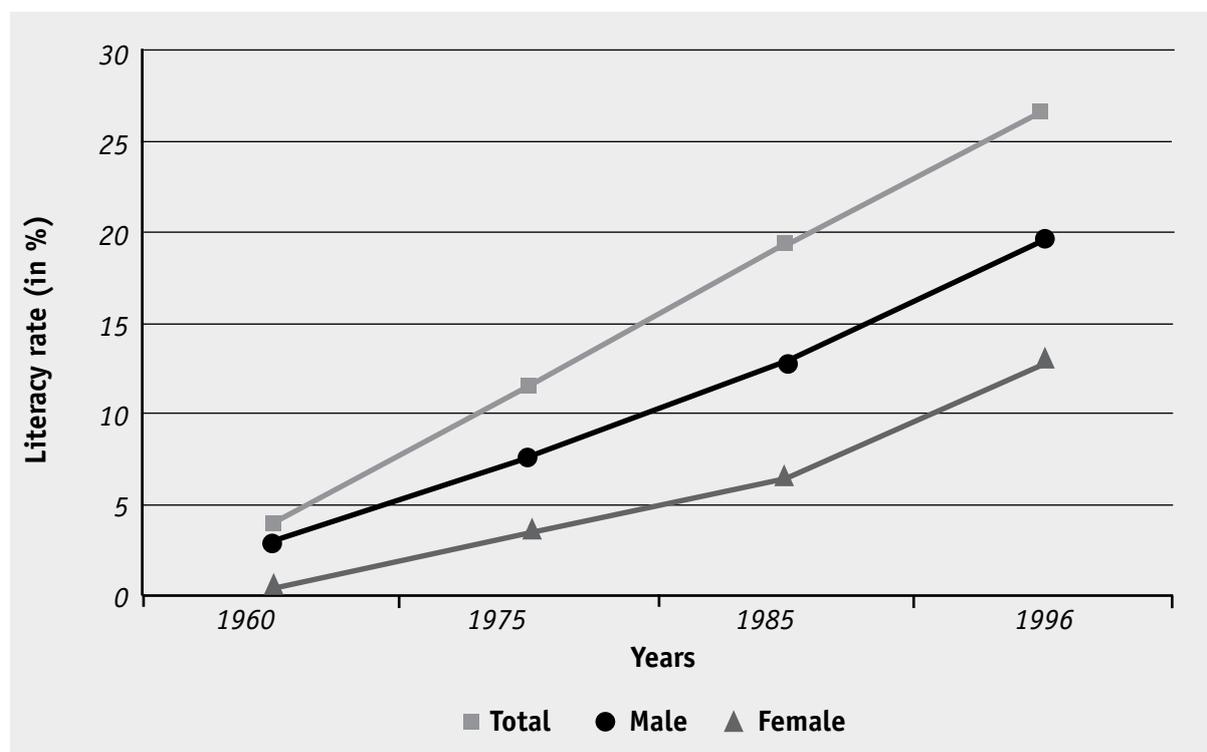
Source: INSD (2000, pp. 160)

The rate for males was 29 per cent. For females, it was a mere 15 per cent –the second lowest reported country value in GMR 2007. The estimated absolute number of illiterate adults was just over 5 million. As would be expected, the literacy gap between the rural and the much smaller urban populations is serious (see Table 3.3).

Figure 3.3 documents the enormous challenge that Burkina Faso is facing. In 1960 the literacy rate was 3.0 per cent, with hardly any women at all literate. Since then the rate has increased

continuously over the last 40 years, but at a pace that is largely unsatisfactory. Obviously, to accelerate progress will require not only literacy policies but also significant expansion of primary education enrolments. But even at this stage of the analysis one can already note that it will be difficult to address this double challenge, because with such an extremely low adult literacy rate it will be very difficult to attract sufficient school teachers and locally recruited literacy instructors, especially in provinces such as Komandjari and Yagha, where the literacy rate is around 5 per cent.

Figure 3.3: Evolution of literacy rate (10 years and more), 1960-1996



Source: INDS (2000, chapter 5, table 9)

Burkina Faso is a genuinely multilingual country with 68 living languages. French is the lingua franca that bridges the different ethnic and linguistic groups, but unlike Portuguese in Brazil it is not spoken by a large proportion of the population. However, among those who are literate, French is in most cases the language in which they are literate, as figure 3.4 underscores. The reason for this is that French has always been the language of instruction (Lallou, 1998). Among the national languages, the three most important ones - Moore, Dioula and Fulfulde - have been taught as language options at school, while Arabic also has some importance. This linguistic situation poses important policy dilemmas, as it does in many other African countries: if no national language is acceptable to all the people as the lingua franca, then a foreign language will continue to serve as such. But if few people speak that foreign language, and even fewer are literate in it, there is an important risk of exclusion on linguistic grounds. This would imply that people basically need to become literate both in their mother tongue and in that foreign language.

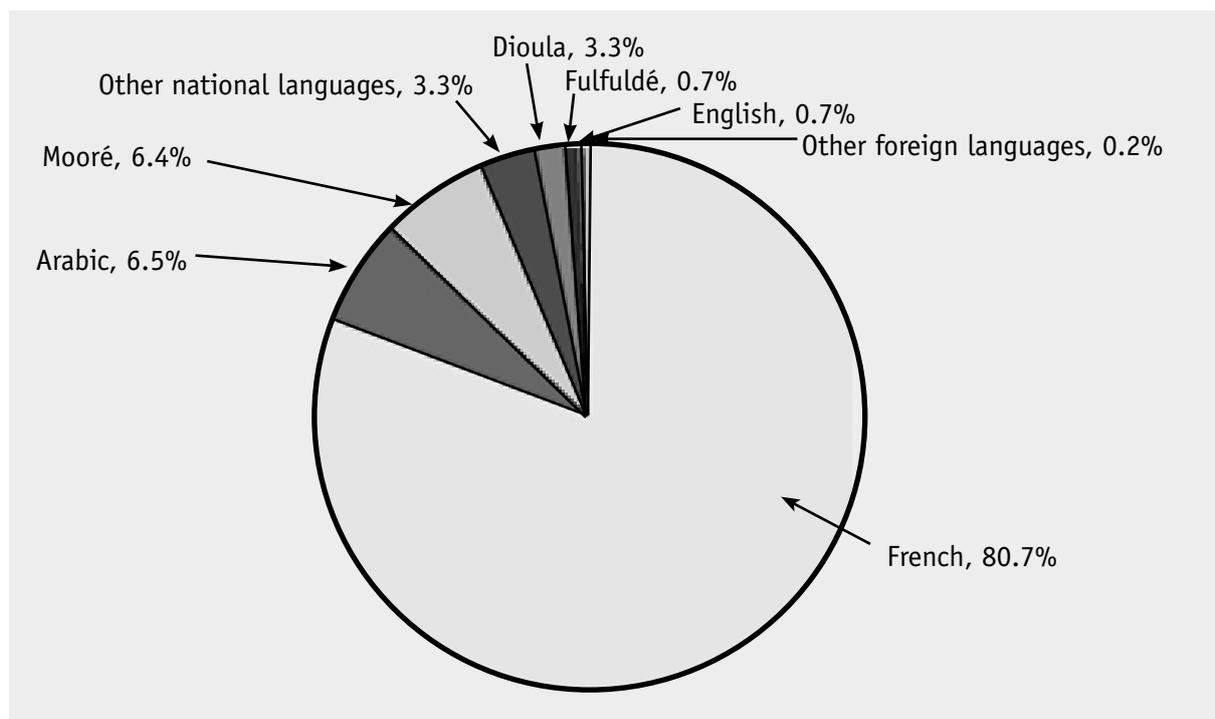
In sum, Burkina Faso has a large stock of illiteracy, distributed mainly in a large rural population and in a large number of indigenous languages.

### 3.2.3 Uganda – stock and distribution

While the socio-economic context of Uganda resembles that of Burkina Faso, its literacy indicators are closer to those of Brazil. Its population of 24.7 million people (Ministry of Gender, Labour and Social Development, 2002) is twice the size of that of Burkina Faso but, as its area is much the same, rather less scattered. Almost 90 per cent of the population lives in rural areas and the GNP per capita in 2004 stood at US\$250, even smaller than in Burkina Faso.

The literacy rate, however, is significantly higher. The 2002/03 National Household Survey revealed an overall literacy rate of 70 per cent among persons aged 10 years and above, with 77 per cent for men and 63 per cent for women. Table 3.4 shows the variations between the four administrative regions, from 79 per cent in the Central to 50 per cent in the Northern. The

Figure 3.4: Burkina Faso - Literate population according to language (in per cent of total number of literates)



Source: INSD (2000, chapter 5, table 7)

Table 3.4: Literacy rates for population aged 10 years and above, by gender and region

	1997			1999/00			2002/03		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Uganda	74	57	65	74	57	65	77	63	70
Urban	89	79	83	92	82	86	90	84	87
Rural	70	49	59	79	54	62	74	60	67
Central	81	74	77	81	74	77	82	94	79
Eastern	72	52	62	72	52	62	72	54	63
Northern	72	38	55	64	33	47	72	42	56
Western	70	51	60	74	61	67	79	69	74

Source: INSD (2000, pp. 160)

capital city, Kampala, has a literacy rate of 92 per cent. The rural-urban divide is also clear: 87 per cent literate in the urban areas, 67 per cent in the rural.

Uganda's National Adult Literacy Strategic Investment Plan (NALSIP) (Ministry of Gender, Labour and Social Development, 2002), is based on a headcount of 6.9 million illiterates of 10 years and above, whereas the EFA Global Monitoring Report 2007 estimated 4.2 million illiterates of 15-65 years old in the period 2000-2004 – a difference of 2.7 million people. For the purposes of this report, we use the GMR figure.

Linguistically, the situation in Uganda is as complex as in Burkina Faso. There are over thirty different languages that serve as mother tongues (Ladefoged et al, 1971 and Okech, 2005). About 20 per cent of the people speak two or more of these local languages, but they do so in different combinations (Okech et al, 1999). Attempts to adopt Swahili as the lingua franca – as neighbouring countries did – failed. The result is that there is not one single African language that plays a unifying role and that English remains the language of trade and administration, just as French does for Burkina Faso. In fact, English is the only official language, although it is only spoken by those who have attended school long enough to master it. Following the principle that literacy training

(formal or non formal) should always commence in the language that people actually speak on a daily basis (UNESCO, 2003b) would require a two-stage literacy course (local language and English), as in Burkina Faso.

In sum, Uganda faces much the same quantitative challenge as Burkina Faso, but has the advantages of an already higher literacy rate – and thus more human resources available to help – and a more densely distributed population.

### 3.3 Inflow of Illiterate Children

An important inward flow into the stock of illiterates consists of the children who never went to school, dropped out, or completed school without becoming literate. As these children enter the 15-65 age group, they officially join the ranks of adult illiterates. From current levels of primary education enrolment, drop-out and survival rates, and from measures of learning achievement, we will assess the extent to which future numbers of adult illiterates will be affected by basic education in the three countries.

#### 3.3.1 Brazil – inflow of illiterate children

In Brazil, recent trends in enrolment rates in basic education are encouraging. Both net and

gross enrolment ratios have gone up as table 3.5 shows. While in 1980 almost 20 per cent of all eligible children were not enrolled in school, the percentage went down to 5.7 per cent by 2000. All five regions registered this positive trend, but the poorest regions, North and Northeast, show the highest increase in coverage, although they still lag somewhat.

**Enrolments-** In 2000, the GER in primary education was well over 100 per cent in all five regions. This is partly explained by the improved capacity of the education system to reach out to children that were excluded in the past.

But it is partly also explained by poor internal efficiency: late entry, grade repetition and the persistent problem of over-aged children. In other words, the country has been incorporating children from poorer socio-economic backgrounds (sometimes not at the appropriate age) who usually face more difficulties in performing well in school.

**Attendance-** From table 3.6 it can be seen that most of the children of primary school age were actually attending school in 2000. These figures suggest that access is close to universal.

*Table 3.5: Net and gross enrolment ratios in basic education (ensino fundamental) by region, 1980, 1991 and 2000*

Region	Net enrolment rate			Gross enrolment rate		
	1980	1991	2000	1980	1991	2000
North	69.9	75.8	90.4	88.4	99.9	123.7
Northeast	69.1	72	92.8	89.7	96.0	141.2
Southeast	89.2	91.3	96.1	106.1	111.4	119.8
South	84.3	92.1	95.6	98.5	110.2	112.0
Centre West	80.1	90.6	94.1	103	118.6	132.4
Brazil	80.1	83.8	94.3	98.3	105.8	126.7

Source: MEC/INEP e IBGE (<http://www.edudatabrasil.inep.gov.br/>)

*Table 3.6: Attendance rates by age group and region, 1980, 1991 and 2000*

Region	Between 7 and 14 years			Between 15 and 17 years		
	1980	1991	2000	1980	1991	2000
North	70.3	81.3	93.4	43.2	58.0	76.4
Northeast	69.6	82.7	95.2	45.2	57.8	82.4
Southeast	90.2	93.5	97.7	54.7	66.8	85.5
South	85.3	93.5	97.4	48.0	63.0	81.1
Centre West	80.7	93.8	96.5	47.8	61.4	84.1
Brazil	80.9	89.0	96.4	49.7	62.3	83.0

Source: MEC/INEP e IBGE (<http://www.edudatabrasil.inep.gov.br/>)

Given high enrolment and attendance rates, the main challenge now seems to be to keep children in school long enough to become permanently literate. In school-year 2001-2002, 79.9 per cent of the pupils reached the fourth grade of primary education, with girls performing remarkably better than boys (84.5 per cent against 75.8 per cent). On the other hand, 15.5 per cent of the girls and 24.2 per cent of the boys did not complete those four years of schooling and were likely not to have become literate. Nevertheless, Brazil has made impressive achievements in primary education.

**Attainments-** Finally, we need to look at achievement, i.e. the degree to which pupils actually appear to have acquired literacy skills, based on direct testing. Brazil's national system for the evaluation of education (SAEB) revealed that in 2003 only 4.8 per cent of 4th grade pupils performed adequately, while 55.4 per cent performed insufficiently or very insufficiently. The remaining 39.8 per cent could be considered borderline. Two inferences follow. On balance, in Brazil at this time four years of primary education are not sufficient to ensure that the majority of children achieve permanent literacy. Second, the numbers of children who complete only four years of school or fewer need to be included in the stock of the illiterate population. Indeed, Brazil already addresses them through its *Fazendo Escola* programme that provides a second chance to complete primary education, and enrolled 3.3 million learners in 2006 (Henriques and Ireland, 2006). Unfortunately, the costs and unit costs of this programme are not available to be considered here.

### **3.3.2 Burkina Faso – inflow of illiterate children**

**Enrolments-** In 2004, there were about 2,411,000 children aged between 7 and 12 years in Burkina Faso. Only 1,140,000 of them (47.3 per cent) were in school. The other 1,271,000 will join the stock of 5 million illiterate adults. Some of them were over-age, so that the primary NER stood at 40 per cent. This was an increase of 5 per cent over the 35 per cent reported for 1999 or one per cent per year. The target for 2010 is an NER of 70 per cent, according to the Ten-Year Basic Education Devel-

opment Plan (MEBA, 2001). There was thus a gap of 30 per cent that needed to be closed in 6 years, implying a growth rate of close to 5 per cent, or five times the current rate. Even if the target is met, a large number of young people will remain unschooled, most likely illiterate and thus constitute further additions to the stock of illiteracy.

**Attendance-** In 2004, the dropout rate over the 6-year primary cycle was running at 30.8 per cent. While this was a strong improvement over the 40 per cent rate observed in 2001, it still implied that some 350,000 young people could be expected to flow into the stock of illiteracy. However, the strength of the improvement since 2001 gives hope that the reduction of dropout will be accelerated, the survival rate increased and the inflow into the stock of illiteracy virtually stopped by 2015.

**Attainments-** Burkina Faso participated in the PASEC international survey which was held in 1995 and 2000 among a number of Francophone African countries (Michaelowa, 2002). The Burkinabé children performed generally well in comparison with pupils in the other countries. In fact, only 17% of the students did not achieve the minimum mastery required in French (Bernard, 2003). However, they did so in a context of much lower enrolment. The relatively high performance could be explained not only by a high quality of education, but partly also by the over-representation of the more talented children of the country. Nonetheless, we may expect that those children who complete the 6-year primary course do have an adequate level of literacy skills. It may be a challenge to sustain this level of achievement, if enrolment were to expand rapidly, as the case of Uganda will illustrate.

### **3.3.3 Uganda – inflow of illiterate children**

**Enrolments-** One of the great educational achievements of Uganda is without doubt its rapid expansion of enrolments through the introduction of free primary education in 1997 (UNESCO, 2002). The country's strategic priority established in its Education Strategic Investment Plan (ESIP) 1998 – 2003 was to achieve universal enrolment of primary school age children (6 – 12 years) with net enrolment

approaching 100 percent by 2003, including full enrolment of females and those currently disadvantaged by geographical location (NSDS, 2004). The effects of implementing this policy have been impressive. Primary school enrolment which was about 3.1 million in 1996 rose to 5.2 million in 1997, an increase of about 68 percent (UBOS, 2005) and to 7.1 million in 2004, when the NER reached 90 per cent. Gender parity was also achieved.

**Attendance-** No data are available on dropout after 2001. In that year, the dropout rate by Grade 5 was 36.4 per cent and by the final Grade 7, 59.3 per cent. The implication is that substantial, but gradually decreasing, inflows of young people to the stock of illiteracy are likely to continue for some time.

**Attainments-** Therefore, there is need also to assess the quality of education. Uganda appears to be the mirror image of Burkina Faso to some extent: it has better enrolment levels, but there are even greater concerns about quality. One of the general conclusions of the GMR on quality (UNESCO, 2004) was that quantity (i.e. expansion of education) does not have to rise at the cost of quality in the long run, but that in the short run the risk of such a trade-off is real. Is that trade-off happening in Uganda?

Like Brazil and Burkina Faso, Uganda has also participated in an international assessment (SACMEQ, 2002)<sup>13</sup> in 2000, among fourteen predominantly Anglophone African countries. Ugandan pupils had the third lowest mean score on reading. For mathematics, Uganda ranked one place higher. Just above one third of the students reached the minimum level of mastery in reading. More worryingly, only 10% of the students achieved the desirable level of mastery defined and agreed by a group of reading experts in the country (Byamugisha & Senabulya, 2005: pp 158: Table 7.4).

In addition to confirming that the average age of Ugandan pupils was clearly higher than that of pupils in most other countries and underscoring the large proportion of over-aged children, the survey also revealed factors that had

probably militated against quality and effective learning. Uganda scored lowest in the frequency at which pupils received meals -having at least one meal a day is of course critical for learning. Furthermore, while 88.9 per cent of Ugandan pupils had a seat of their own in class, only 74.5 per cent had a place to write, only 14.7 per cent had their own reading textbook, and a mere 12.2 per cent had their own mathematics textbook. This extremely low average prevalence of textbooks implied that there were many classrooms where not a single textbook was available. In fact, 67 per cent of all Ugandan pupils find themselves in such poor learning environments (Ross et al, 2004). Finally, Uganda had the youngest teachers on average – indicating a rapid growth of the teacher-corps in recent years – and it had by far the lowest proportion of female teachers. Clearly, in this light it seems too early to expect the achievement of high literacy rates.

Uganda is of course aware of the results of defective quality and has launched an interesting initiative to combat youth illiteracy: Basic Education for Urban Poverty Areas. This three year programme targets young people of 9 to 18 years who dropped out of school or never went there, and offers literacy, numeracy and pre-vocational skills (Okech, 2006). Unfortunately, the costs and unit costs of this programme are not available to be considered here.

### 3.3.4 Conclusion: the impact of primary education on future literacy levels

Ideally, we would like to conclude this section by estimating the percentage of children that enter the 15-64 age group literate (or illiterate). Technically, this could be done in two steps:

- Multiply the Intake Ratio with the Survival Rate. The former is the number of new entrants as a percentage of all children at entry age, while the latter is the number of children that reach a certain grade as a percentage of all entrants. The multiplication of the two gives us the number of children that eventually reach a certain grade as a percentage of all children that are born in a certain year.

<sup>13</sup> All information in this paragraph is derived from SACMEQ (2002), unless indicated otherwise.

- Multiply this outcome with the percentage of children that perform sufficiently in literacy tests.

Three problems hinder this exercise:

- There are important differences, especially in Uganda and Burkina Faso, between the Net Intake Ratio (NIR) and the Gross Intake Ratio (GIR), as table 3.7 shows. The former measure is restricted to children who enter at the proper age, the latter also includes children who enter late (or early, in some cases). This difference between NIR and GIR is typical for countries that find themselves in the middle of a process of rapid expansion of primary education as a result of the implementation of active policies. These policies do not only raise the number of children that enter at the proper age, but it also attracts large numbers of “older” children who missed their chance to enter timely. Hence, the GIR can even exceed 100%, as in the cases of Uganda and Brazil. This is necessarily a temporary phenomenon. In time, more and more children are likely to enter timely, so that the NIR and the GIR would converge towards a level of, hopefully, 100%, as the Brazilian case illustrates. Thus, the NIR underestimates the number of children that enter school, while the GIR overestimates it. Merely in order to be able to pursue our exercise, we estimated an Assumed Intake Rate (AIR) for each of the three countries (see table 3.7). This AIR lies between NIR and GIR and represents a reasonable estimation of the value that NIR may reach in the three countries in the coming years. It is not an empirically established figure and should not be understood or treated as such.
- The survival rates that we found for the respective countries concern different grades: grade 4 in Brazil, grades 5 and 6 for Burkina Faso, and grades 6 and 7 for Uganda. These differences should be well noted and kept in mind.
- Data in the area of achievement are entirely incomparable, since the three countries never took part in the same international school survey. In the column “achievement” we have restricted ourselves to a rough indication (high, medium, low) of the countries’ performance compared to countries in their own region (Latin America, West Africa, East Africa), based on the three regional surveys mentioned above. However, the overall levels of achievement in these three regions are probably different. As a point of reference we note that Brazil, which scores “medium/high” within its region, has roughly half of its children perform insufficiently according to its national school survey.

Despite all these caveats, we do wish to pursue this exercise, primarily with a view to demonstrate the logic behind it. It may invite countries to do the exercise for themselves, using richer, nationally available datasets.

Table 3.7 first presents NIR and GIR for the three countries, followed by the Assumed Intake Rate (AIR). Then follows the Survival Rate, with the grade in question in brackets. Next is the multiplication of AIR and Survival Rate, i.e. the number of children that reach that particular grade, as a percentage of all children born in a certain year<sup>14</sup>. These outcomes should then be interpreted in light of the broad indication of achievement which is given in the last col-

Table 3.7: Indication of the percentage of children that become literate

	NIR	GIR	AIR	Survival Rate (gr)	AIR x Surv. R.	Achievement
Brazil	94	117	97	84.4 (4)	82 % (4)	Medium/high
Burkina Faso	26	71	40	75.8 (5) / 69.2 (6)	30% (5) 28% (6)	High
Uganda	64	163	90	63.6 (6) / 40.7 (7)	57% (6) 37% (7)	Low

Sources: GMR-2007 Annex Tables, except NIR for Brazil (MEC); AIR (estimations); achievement (LLECE, PASEC and SACMEQ)

<sup>14</sup> Strictly speaking, one should use the Intake Ratio of several years ago, because it takes children an X-number of years to actually reach grade X. However, we prefer to give an indication of the education system’s present capacity to reach children and keep them on board.

umn. It should be noted that for NIR, GIR and Survival Rate, we have used the most recent UNESCO statistics; these may differ from those used elsewhere in this report.

It can be seen from table 3.7 that only in Brazil the vast majority of children reaches the last grade. However, this concerns just the first cycle of primary education which consists of only four years; moreover, there are some concerns about learning achievement. In Burkina Faso, less than one out of three children is likely to reach 6th or even 5th grade, but achievement is good compared to neighbouring countries. Uganda has twice as many children reaching grade 6 compared to Burkina Faso, but there are greater concerns about achievement. Despite all methodological caveats, it seems reasonable to say that in all countries, large absolute numbers of children must be entering the 15-64 age group being functionally illiterate. This illustrates that attempts to reduce adult illiteracy should not only address adults, but also the capacity and the quality of primary education, as well as other 'flows' of the analytical framework.

### 3.4 Adults losing their skills or acquiring them informally

A second inward flow consists of literate adults who lose their literacy skills from not using them sufficiently. This, in its turn, can be seen as the consequence of a 'literate environment', in which occupations and transactions do not require literacy skills, where a culture of frequent use of literacy skills does not prevail and few reading materials are available. The quality of the literate environment also influences

literacy acquisition by children in school and by adults in non-formal literacy programmes.

Conversely, a rich literate environment is conducive to the retention of literacy skills, and may even enable some illiterates to acquire some literacy skills informally, i.e. by learning-by-doing and/or through the assistance of literate people in their vicinity.

A direct assessment of these twin-flows is not possible. However, a focus on the literate environment enables an indirect impression, but not a quantitative enumeration. One could argue, following Easton (2006), that the conditions for the retention and the informal acquisition of literacy skills are best when:

- reading materials are abundant and easily accessible (see also Ouane and Glanz, 2005);
- there are good formal and non-formal education systems including school libraries,
- literacy rates are fairly high, so that even illiterate people can easily find literate people in their proximity to help them,
- administrative and economic institutions are well developed and invite literate interaction.

We focus here on the first condition, the availability of reading matter, and provide a basic assessment, using a small set of core indicators of the literate environment provided by the GMR on literacy<sup>15</sup>. Table 3.8 provides a selection of these indicators and is followed by some comments per country. Chapter 6 of this report provides discussion of strategies to strengthen the literate environment, addressing a broader range of aspects.

Table 3.8: Indicators of the literate environment (1997-2002)

	Daily newspapers	Daily copies per 1000 pop.	Non-daily newspapers	Radios per 1000 pop.	TVs per 1000 pop.	Internet users per 1000 pop.
Brazil	465	46	2020	430	221	81
Burkina Faso	4	1	19	34	9	2
Uganda	3	3	9	121	15	4

Source: 2006-edition of the GMR (UNESCO, 2005), Annex Table 2B, except Non-daily newspapers in Burkina Faso (Alidou 2006).

<sup>15</sup> Unless indicated otherwise, the data in this paragraph are from Annex Table 2B of the GMR-2006

### 3.4.1 Brazil - Adults losing their skills or acquiring them informally

In Brazil, 465 different daily newspapers appear in numbers that provide 46 copies per 1000 inhabitants. As a reference point: in industrialized countries the number of copies per 1000 inhabitants is typically several hundreds. Remarkably high, however, is the number of non-daily newspapers in Brazil - 2,020. Although we do not have an indication of the number of copies per 1,000 inhabitants, this still seems an important fact. Weekly, monthly or other periodicals are crucial means of communication in environments where people do not have access to daily newspapers, whether for financial or logistical reasons.

Brazil is presently developing a Reading and Book Policy to stimulate reading practices among young and adult people who have recently learned to read, thus strengthening the literacy strategy developed by the Literate Brazil Programme and creating a richer literate environment to support neo-literates in retaining their skills (Henriques and Ireland, 2006). The likelihoods are that losing literacy is a high risk only in the North and Northeast regions.

### 3.4.2 Burkina Faso - Adults losing their skills or acquiring them informally

In Burkina Faso there are four daily newspapers, which together provide only one copy per 1,000 inhabitants. The low figures for newspapers, radios, TVs and internet users per thousand inhabitants suggest that the written word is not part of daily life for many Burkinabê. Although the government does sponsor nineteen monthly, bimonthly and quarterly newspapers in various national languages<sup>16</sup> and offers literacy prizes to stimulate a literate culture in the country (Alidou, 2006), the literate environment of Burkina Faso seems to afford literate inhabitants few incentives and opportunities to 'train the brain'. The risk of adults losing their literacy skills is high. The additional fact that

in recent years fewer than half the people who completed the first stage of literacy.

went on to complete the second stage of 'full literacy', suggests that large numbers of adults do lose their skills and re-enter the stock of illiteracy. Precise quantification is of course not possible.

### 3.4.3 Uganda - Adults losing their skills or acquiring them informally

The situation in Uganda is on balance slightly better than that in Burkina Faso, although the number of non-daily newspapers is particularly low. More information on the literate environment in Uganda is provided below (page 28).

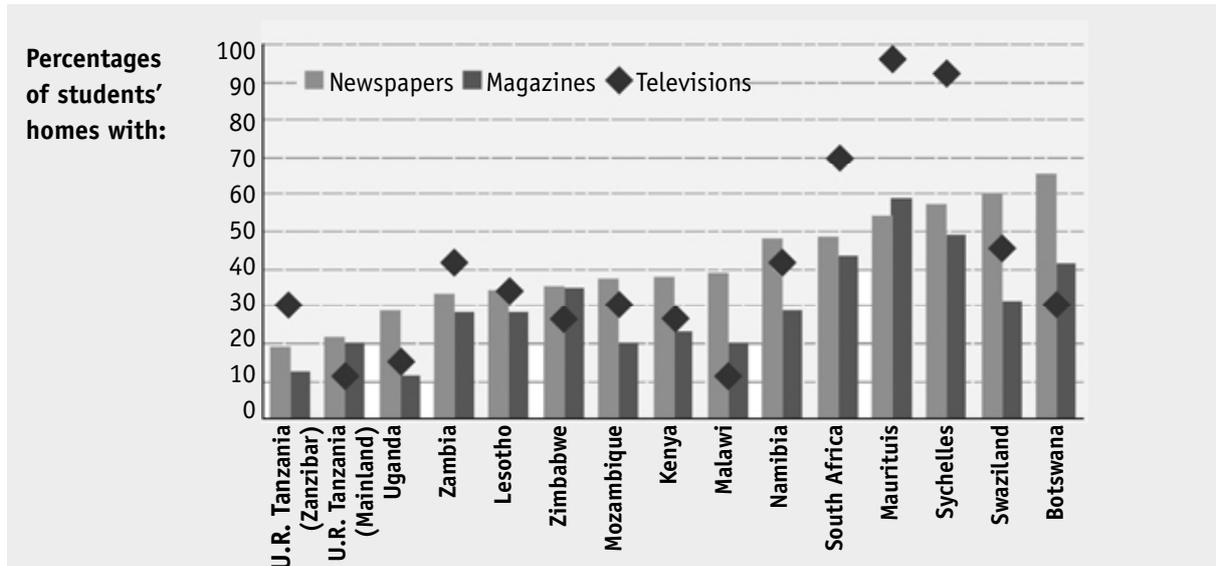
Uganda clearly has poor conditions for retaining literacy skills. Indeed, an evaluation of literacy programmes in Uganda (Carr-Hill, 2001) confirms that neo-literates used their acquired skills only on a limited scale, and that this was caused by a lack of reading materials, rather than by a lack of skills. Okech (2005) explains that 'most of the 30 local languages of Uganda have hardly been written and therefore have a very limited circulation of written materials for people to read'. As with Burkina Faso, then, the risk of adults losing their literacy is high.

### 3.4.4 Conclusion on adults losing their literacy skills

Burkina Faso and Uganda illustrate how difficult it is in a context of poverty and multilingualism to create a literate environment rich enough to sustain literacy skills. Very few people in these countries read newspapers. Moreover, the number of languages is much higher than the number of daily and non-daily newspapers, which implies that in most languages, no periodicals exist at all. In some cases the reason is that the language is unwritten. Minorities in Brazil may face the same problem, even if the overall situation in the country is much better. In Chapter 6 we shall therefore address strategies to provide access to the written word to minority groups.

<sup>16</sup> Alidou (2006), citing Nikiema (1994), recalls that 60 newspapers were once published in national languages. This was probably in the aftermath of the Alpha Commando literacy campaign in the late 1980s (Api, 1988).

Figure 3.5. Prevalence of newspapers, magazines and televisions in students' homes in fifteen African education systems, 2000



Source: copied from the GMR on Literacy (UNESCO, 2005), quoting Ross et al (2004)

### 3.5 Ageing (or dying) illiterates exiting

An important outward flow from the stock of illiterate adults consists of those who pass the age limit of 65 and those who die prior to that. The latter group could be important in Burkina Faso and Uganda, where life expectancy is 47.4 and 46.8 years respectively (in Brazil it is 70.3).

People who pass the age limit of 65 today, were born in 1942 and reached the entrance age for primary education in 1948. In those days, the number of people who actually did go to school was much smaller than it is today, as table 3.2 illustrates for Brazil and figure 3.3 for Burkina Faso. Thus, every year a number of 64 year olds leave the age bracket with relatively many illiterates among them, and they are 'replaced' by 14 year olds who enter the age bracket with declining proportions of illiterates among them. In principle, this continuous replacement process should lead to a reduction of the number of adult illiterates. Whether this actually happens and the extent to which it happens depend on demographic factors and on the performance of the education system.

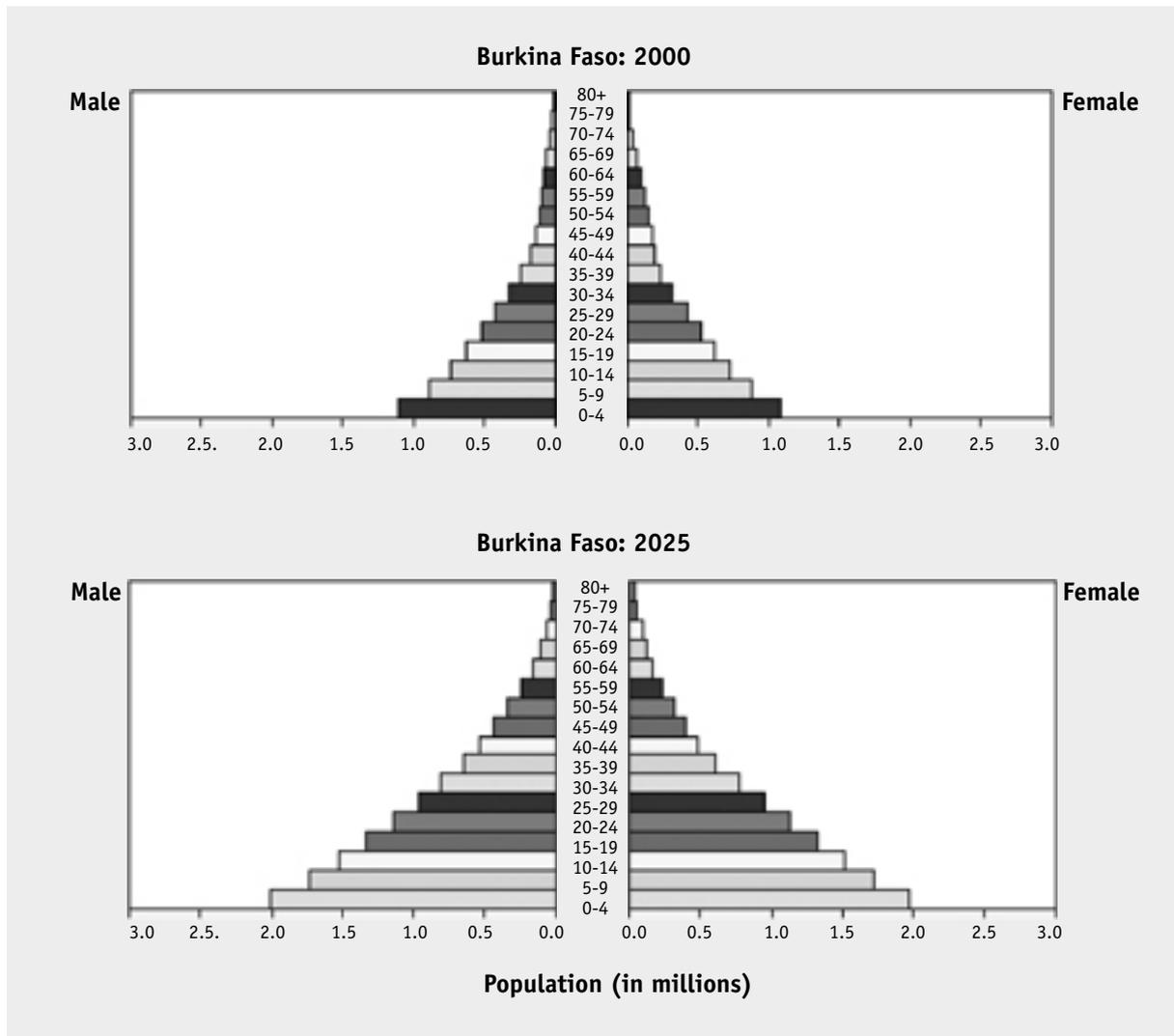
Figure 3.6 contains the population pyramid of Burkina Faso. Younger people are at the bot-

tom, older ones at the top, males to the left, females to the right. The steep pyramid reflects the consistently more numerous younger generations. Such a profile is usually seen as the combined outcome of two factors: infant and child mortality rates have been reduced as a result of improving healthcare, and fertility rates are still high. As figure 3.6 shows, the situation in 2025 is predicted to be largely similar to that of 2000: the population will have grown, but in equal degree at all age levels.

The demographic profile of Uganda strongly resembles that of Burkina Faso. The profile of Brazil, however, is very different, as figure 3.7 shows. Brazil has reduced not only mortality, but also fertility. A comparison between Brazil's pyramid of 2000 and the one of 2025 shows that the profile is actually losing its pyramidal shape.

The implications of these different demographic profiles are as follows. In Brazil, the numerical difference between children and adults was already less pronounced in 2000, while the profile for 2025 suggests that in the future more people will leave the age-bracket than enter it. Even today, Brazil may be approaching the break even point where the number of illiterate children that enter the age bracket is smaller

Figure 3.6: Population pyramids of Burkina Faso, 2000 and 2025



Source: U.S. Census Bureau, International Data Base.

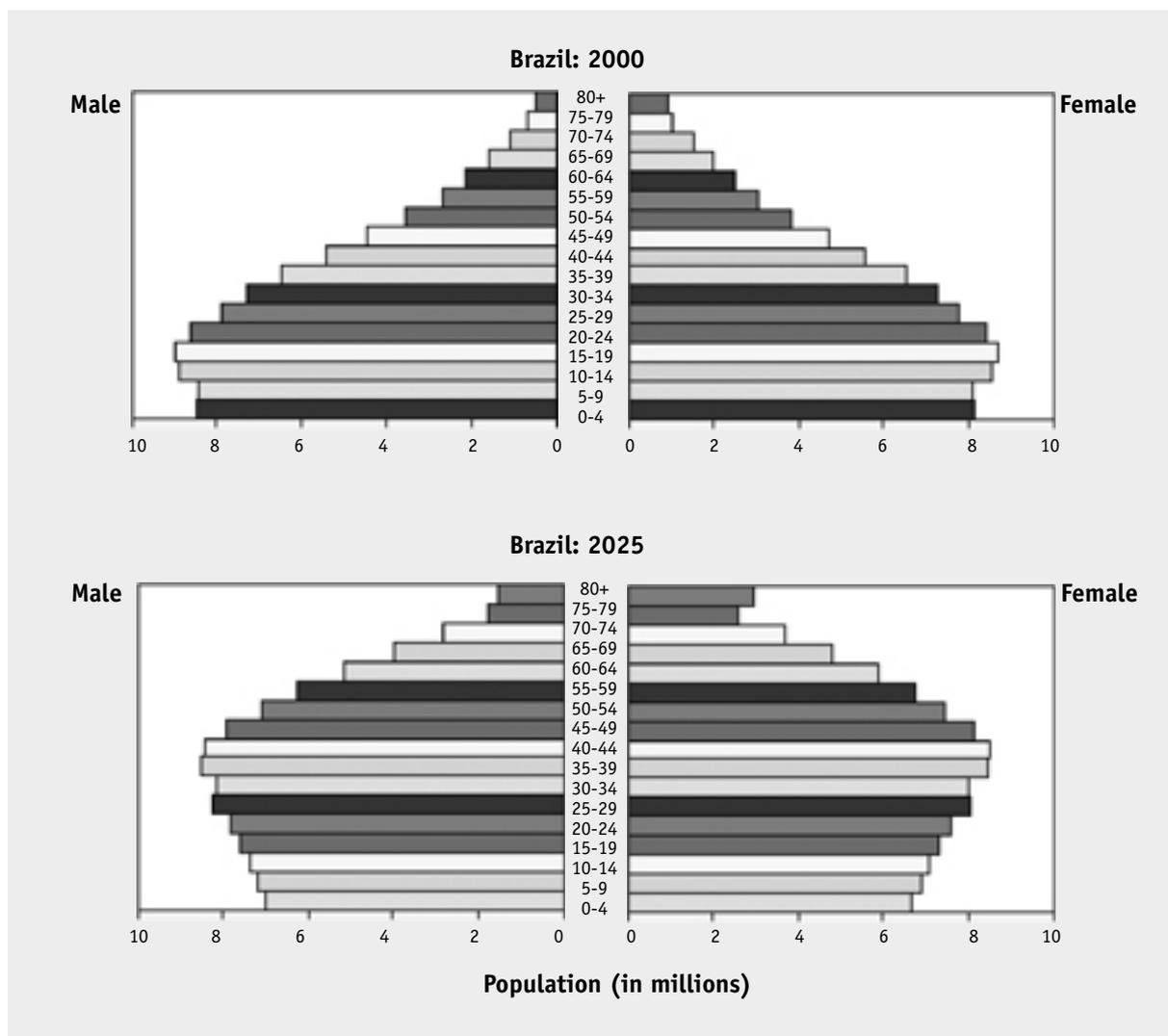
than the number of adult illiterates that leave it<sup>17</sup>. Passing this break even point is crucial in attempts to eradicate illiteracy, because beyond this point the stock of illiterates no longer grows autonomously: it becomes a residual problem.

In contrast, if we look at Burkina Faso in 2000 and compare the number of children about to enter the 15-65 age group with the number of adults about to leave it, we see that the former is much larger than the latter. The difference is

in the order of magnitude of a factor ten. So, even if all of the adults that pass the 65 age limit were illiterate, the absolute number of ageing illiterates who leave the stock is comparatively small. Now, as long as just a minority of the children in Burkina Faso reach grade 5 or 6 (see table 3.7, next page), the illiterate children entering the stock will outnumber the few ageing illiterates that leave it. With about ten times as many children entering the age bracket as adults leaving it, about 90 per cent of all children should become literate, just to reach

<sup>17</sup> In 2000 there were about three times as many children of 10-14 years old than adults of 60-64 years old. With more than 80 per cent of all children reaching grade 4 (table 3.7), we would be able to conclude that the ageing illiterates could already outnumber the newly illiterate children, if only we could trust that the learning achievement of those children is sufficient. Unfortunately, this does not yet seem to be the case. But it does seem defensible to say that Brazil is presently approaching the break even point.

Figure 3.7: Population pyramids for Brazil, 2000 and 2025



Source: U.S. Census Bureau, International Data Base.

the break even point. Burkina Faso is far from that point<sup>18</sup>. The same analysis can be given for Uganda: its intake and survival rates are better than those of Burkina Faso, but literacy achievement among the survivors may be lower.

In both countries, the threatened increases in the numbers of illiterates are at present heavily offset by the low average life expectancy (see Table 3.9). The pyramid for Burkina Faso shows

that the numbers of people aged 20-64 who die are greater than the numbers of 15-year-olds who enter the stock of illiteracy. The same is true of Uganda. But this will change as health information, practices and services improve and life expectancy increases.

The main inference about 'ageing illiterates exiting' is that reducing the fertility rate will help substantially both in making primary education

<sup>18</sup> It should be emphasized that this analysis concerns absolute numbers, not relative numbers or the literacy rate. The literacy rate will rise whenever the literate proportion of the children entering the age bracket is higher than the literate proportion of ageing adults that leave the age bracket. This has already been the case for a long time. But for absolute numbers of illiterates to decrease we need a much more pronounced difference between the age groups in terms of the literate proportion.

Table 3.9: Fertility rate and life expectancy, 1995-2000 and 2000-2005

	Fertility rate 1995 - 2000	Fertility rate 2000 - 2005	Life expectancy 1995 - 2000	Life expectancy 2000 - 2005
Brazil	2.3	2.3	67	70.3
Burkina Faso	6.9	6.7	45	47.4
Uganda	7.1	7.1	42	46.8

Sources: GMR-2003/4 and GMR-2007, Annex Table 1

universal and in ensuring that the ageing illiterates are not replaced. In turn, primary education and literacy, especially among women, will accelerate the reduction of fertility rates.

### 3.6 Migration

Migration can create both inward and outward flows and affect the literacy rate either positively or negatively. This factor is impossible to assess for the three countries on current statistics. All we can do is to call for better data collection in this regard, because it may well be the case that, on balance, developing countries see more literate than illiterate people leave their homelands for what they hope will be a better future elsewhere.

### 3.7 Literacy policies

The last flow that we discuss consists of those people who leave the stock by successfully completing a literacy programme. The numbers to be trained should be estimated through an assessment of both the stock and the other flows. In practice, however, literacy policies are primarily based on just the stock and tend to disregard other flows. Whatever the reason, the impact of the flows on the stock should be kept in mind, as we review the literacy policies of the three countries.

#### 3.7.1 Brazil – current literacy efforts

The 1988 Brazilian Federal Constitution guarantees the right to education for young people and adults: “*compulsory primary and free*

*schooling is guaranteed for all those who did not have access at the appropriate age*”<sup>19</sup>.

Historically, the Brazilian adult literacy policy has been characterized by the mass campaigns that started in the 1940s, offering short courses delivered by non-professional instructors. Although these campaigns did not seem to have had an important effect on the overall literacy rate, they do seem to have contributed to the gradual development of more structured forms of literacy training, both by stimulating the demand for education in this segment of the population and by involving local authorities (Masagao Ribeiro and Gomes Batista, 2005).

The era of mass campaigns was followed in the mid 1990s by a series of compensatory programmes targeted at special groups in poor parts of the country (Di Pierro & Graciano, 2003). The following examples are described in Van Ravens and Aggio (2007).

- PAS, the Solidarity for Literacy Program, provided by the Solidarity Community Council, an organization affiliated with the Executive Office of the President. PAS was by far the largest of these programmes and its aim was to combat extreme poverty;
- Planfor, a programme for workers, provided by the Ministry of Labour and Employment;
- Pronera, a programme for rural areas provided by the Ministry of Agrarian Development;
- Recomeço, a programme by which the federal government assisted states and municipalities in reducing regional inequalities and improving the living conditions in the poorest parts.

19 Brazilian Federal Constitution, Chapter III, Section I, “Of Education”, Art 208, Paragraph 1.

The PAS module has a six-month duration, with one month dedicated to planning and the training of monitors, and the five remaining months to literacy training activities, totalling 240 class hours distributed into three weekly periods. It works through partnerships between the federal and municipal governments, private companies, civil society organizations, business foundations, and establishments of higher learning.

The Ministry of Education contributed 50 per cent of the total costs per enrollee of US\$60, which included supplying teaching material, support for libraries, as well as grants for teachers and students of the partner universities. However, for municipalities with Human Development Indices lower than 0.5 and for those that had not been adopted by private sponsors, the federal government bore all of the costs, i.e. US\$120 per enrollee.

An operational audit of PAS was carried out in 2002 and showed that 20-26 per cent of enrollees dropped out and that 18-27 per cent of the original enrolment were able to read and write small texts. This low score was the more disappointing, since nearly one-half of those enrolled had some previous schooling, and 4-8 per cent of them already knew how to write before the course. A conclusion from the audit was that a longer duration than 240 hours was needed.

That conclusion implied that an investment of US\$120 per enrollee was insufficient. (It also implied that the unit costs of the very few graduates who could do more than read and write small texts were rather higher than US\$120.)

The Recomeço programme –fourth in the list above and scheduled to run for only two years– was launched in 2001 as part of an ambitiously reinforced effort to provide a full primary education for adolescents and adults who had not had one. Financed through federal resources from the Poverty Fund, the programme aimed to increase primary school enrolment of young people and adults by subsidising states and municipalities to the tune of US\$85.0 per enrollee per year. This implied a significant increase in federal spending on literacy.

In 2004, the Lula government created a specific department within the Ministry of Education, entitled the Secretariat of Continuing Education, Literacy and Diversity (SECAD) and launched the programme Brazil Alfabetizado (Resolução/CD/FNDE N° 22, de 20 de abril de 2006). It enrolled 1.7 million learners in that year alone (Henriques and Ireland, 2006). The enrolment targets for 2005 and 2006 were 2.2 million (ibid.). The overall budget in 2004 and 2006 was US\$68.3 and 89.5 million respectively, resulting in an overall unit cost per enrollee of a little over US\$40 for each of the two years. The basic course costs were apportioned as follows:

Cost item	US\$ programme	Total over 8-month
Initial training for teacher	16.00	16.00
Continuing formation	32.50	32.50
Basic monthly stipend for a 10-hour week (320 teaching hours)	49.00	392.00
Plus \$3 fee per enrollee per month up to 25 enrollees	75.00	600.00
Total	-----	1039.50
<b>Unit cost per enrollee with 25 enrollees (excluding instructional materials and administrative overheads)</b>	-----	<b>41.58</b>

(Different rules applied to classes with students with special learning needs, and in prisons and rural groups <sup>20</sup>).

Public institutions for education have the funds for developing this eight month programme directly transferred to them. NGOs, higher education institutions and private companies receive their funds only after their proposals are analysed and approved, and after they have registered their learners, literacy teachers and co-ordinators.

Costs not included in the table above are those of a number of supporting initiatives addressing teacher training, development of textbooks and materials, knowledge sharing and publications, distance education (the Education Inclusion Observatory), and the literate environment.

### 3.7.2 Burkina Faso – current literacy efforts

Since independence in 1960, Burkina Faso has shown a strong commitment to a policy of literacy and bilingualism (Alidou, 2006, and Fernandez, 2005). Trial and experience have now brought about a permanent, sustainable infrastructure governed since 2002 by a specialized Ministry for Literacy and Non-Formal Education (Balima, 2006). It includes the following architecture of courses and qualifications:

- Initial Literacy (alphabétisation initiale, AI) is the first of two cycles. It consists of 300 hours of learning that should enable the attainment of a basic level of literacy. By 2003, courses were provided in twenty national languages (Halaoui, 2003)<sup>21</sup>. The average unit cost per enrollee for this first stage in centres supported by FONAENF (see below) is estimated to be US\$25.00 (Tiendrebeogo-Kaboret and Matabe, 2006).
- Basic Complementary Training (formation complémentaire de base, FCB) is the second cycle, also of 300 hours, leading to a more advanced level of mastery. The learner is officially declared literate when he or she passes

the final test of the FCB. After the successful completion of the FCB, learners have three options:

- Basic and functional French (apprentissage du français fondamental et fonctionnel, A3F). This is a course of 1200 or 2400 hours. The demand for this course arises from the fact that being literate in a national language, no matter how important it is as a basis, does not yet give access to salary employment in Burkina Faso.
- Cultural, scientific and technical training (formation culturelle, scientifique et technique, CST), a course of 600 hours offering broad personal development.
- Specific Technical Training (formation technique spécifique, FTS), which makes available a variety of skills and competencies of a more practical and vocational nature. Duration vary according to content.

At the institutional level, the creation of the permanent centres for literacy and training (Centres permanents d'alphabétisation et formation, CPAF<sup>22</sup>) was a significant step. More generally, Burkina Faso is praised for the way it develops institutional strength and expertise in adult literacy (Abadzi, 2004). It has adopted the Senegalese "faire-faire" strategy to involve and contract with partners, sponsors and stakeholders while maintaining a coherent overall policy, not unlike Brazil's partnership strategy. Last but not least, Burkina Faso has created a fund to which a variety of stakeholders and donors can contribute; this is the Fund for Literacy and Nonformal Education (Fonds pour l'alphabétisation et l'éducation non formelle, FONAENF).

However, there are still questions regarding the scale of the literacy effort, in relation to the scale of the challenge. There are approximately five million illiterate adolescents and adults. In 2003/2004, 153,667 people (3 per cent) completed the first stage of Initial Literacy. In 2004/2005, only just over half that number

<sup>20</sup> It must be noted that literacy teachers, within the government programme and according to Brazilian law are considered to be volunteers.

<sup>21</sup> Since 68 living languages are being spoken in Burkina Faso, there are still quite a few excluded, at least from courses provided or managed by the government. Nevertheless, the twenty languages that are included are likely to cover the vast majority of the population.

<sup>22</sup> The CPAFs are more than just literacy outlets. For example, they play an important role in a recent HIV/AIDS campaign (Napon and Sanou/Zerbo, 2005)

-80,021- completed the second stage of full literacy<sup>23</sup>. Although 67,472 of them succeeded in passing the literacy test – a success rate of 84.3 per cent- they represent only 1.6 per cent of the entire illiterate population and 2.8 per cent of the numbers indicated by the Jomtien challenge. With a 7 per cent annual improvement, about 14 years are required to reach a goal, but with a 2.8 per cent improvement more than a quarter century would be needed. Whatever the criteria for literacy, a literacy rate of 40 per cent by 2010 (see section 3.3.2) seems difficult to for Burkina Faso to achieve under current conditions.

### 3.7.3 Uganda – current literacy efforts

Similar to Burkina Faso, Uganda had its experience of conducting a ‘single shot’ mass literacy campaign - as Okech (2006) puts it - soon after independence (1964). Two decades of instability followed, after which Uganda was able to revitalise its literacy work in 1992. The government recognizes its inability on its own to meet all of the demand for adult learning, so that faith-based and non-governmental organisations have become involved: about ten national and hundreds of local organisations are active in the field. On the one hand, this multitude of providers have produced a rich variety of approaches, on the other hand Uganda seems to lack an overall coordinating mechanism, such as *faire-faire* in Burkina Faso. Likewise, a rudimentary qualification structure – such as Burkina’s sequence of AI, FCB, followed by a choice of three further options – is also absent. Okech (2006) speaks of a ‘one level structure leading to a dead end as far as continuing education is concerned’.

Despite this, enrolments in the government’s Functional Adult Literacy Programme have been growing impressively – almost five-fold between 1997 and 2004- while the mobilization of finance from all sources has been similar, from US\$200,000 in 1999 to about US\$3 million in 2003 – a 15-fold increase.

Current literacy work in Uganda is dominated by the National Adult Literacy Strategic Investment Plan or NALSIP. It aimed ambitiously to halve illiteracy – thus adopting the Jomtien formula – not by 2015 but by 2007. The government estimates the number of illiterates at 6.9 million and thus aimed to train 3.5 million adults in the five years aimed between 2002 and 2007. Data are not yet available on the outcomes of this effort. However, in 2004, actual enrolments were only 41.4 per cent of planned enrolments, while the growth rates in enrolments in 2003 and 2004 were only 15 and 5 per cent, as compared with the projected 75 and 50 per cent. The intimations are that the 2007 target may well not be met.

On the brighter side, if we accept the 4.2 million illiterates that UIS presently estimates for Uganda as the right figure<sup>24</sup> and observe that Uganda is presently able to train about 10 per cent of that number annually, a 50 per cent reduction of illiteracy by 2015 seems feasible. That probability would be heightened, if the inflow of illiterate children could be stopped and if repeated enrolment by the same people banned.

The cost structure also raises some questions. With a total budget of US\$85.4 million and 3.5 million learners to attend, the overall unit cost is about US\$25. In chapter 2, the normative model proposed US\$22 for a programme of 400 hours, in which 70 per cent of the costs (US\$15.40) would represent the remuneration of literacy facilitators. Since NALSIP offers only 180 hours of instruction (less than half) and sets aside only 18 per cent for remuneration – plus 3 per cent for a bicycle for the facilitator- (a total of US\$5.25) the unit cost of US\$25 seems high. More seriously, the learning targets appear threatened by the level of remuneration and the duration of instruction.

## 3.8 Overall diagnoses

In this last section we wrap up the findings from the previous sections in short overall diagnoses for each of the three countries, followed by a general conclusion.

23 See Balima (2006), citing the PDDEB Biannual report, 2005.

24 UNESCO 2006, GMR 2007-edition, Annex Table 2.

### 3.8.1 Brazil – overall diagnosis

In 2000-2004, a minimum of 15 million people (11.4 per cent of the adult population) were illiterate according to UNESCO data. They are unequally distributed by region, race and socio-economic level, with the North and Northeast as the most problematic regions. While 95 per cent of the population speak Portuguese, the remaining 5 per cent speak some 180 languages. Since illiteracy is likely to be concentrated among these groups, multilingualism is an issue.

Brazil is closing in on the goal of Universal Primary Education and it has the important advantage of a low fertility rate. Thus it approaches the point where the adult illiterates exiting the stock at age 65 outnumber the illiterate children entering the stock at age 15. This would mean that soon the stock of 15 million illiterates will decrease autonomously to a significant degree. With the help of strongly intensified efforts in the area of adult literacy (in 2004, the Brazil Alfabetizado program had reached an annual capacity of 1.7 million learners, i.e. more than 11 per cent of the total number) the EFA goal of halving illiteracy in 2015 seems to be in sight. Indeed, Brazil's own target of virtually eradicating illiteracy by 2011 would be approached.<sup>25</sup>

However, while the present capacities of primary education and literacy programmes have grown impressively, there are still some concerns about their quality. An estimated 18 per cent of all children born in Brazil may not reach grade 4 (see table 3.7). This would mean that an estimated half million children still enter the stock of illiterates annually<sup>26</sup>, a number that the Fazendo Escola programme may not yet be able to cope with. The problems of low learning achievement in education and repeated enrolment in literacy programmes must also be resolved to achieve the EFA goal and Brazil's own target.

### 3.8.2 Burkina Faso – overall diagnosis

Clearly, the literacy situation in Burkina Faso is the most difficult of the three countries. Only 22 per cent of the adult population is literate, and a mere 15 per cent of the women. In absolute terms, that means about 5 million adult illiterates in an adult population of some 6.5 million. Most of the Burkinabè population live in rural areas, are poor and predominantly illiterate. Burkina Faso is a genuinely multilingual country with 68 African languages. French, however, is a dominant language in literacy: 80 per cent of the literate population is literate in French. Nevertheless, ever since independence Burkina Faso has encouraged African languages, both in its literacy programmes and in its efforts to strengthen the literate environment.

Attempts to raise the literacy rate are severely hindered by poverty. The fertility rate is high, so that the school system faces the double challenge of improving the low enrolment ratio and coping with an annually increasing school age population. An estimated 70 per cent of all children who are born in a given year do not reach grade 5 and are likely to be illiterate at age 15. They outnumber the ageing adults who leave the stock of illiterates annually and are only partially offset by the number of adults who die before the age of 64. They thus tend to increase the absolute stock of illiterates.

Burkina Faso has a good infrastructure of learning centres, it has a transparent qualification structure, it has adopted the faire-faire approach and it has created a fund to attract more resources. The country applies all the policy lessons of the recent past. The main problem is the scale. Although the capacity of the Initial Literacy course had risen to a level of some 170,000 in 2004/2005 and may be higher today, this figure is still too low: it would take 29 years to make all existing 5 million adult illiterates literate. Dealing with the increases in their numbers that result from a high fertility rate and low primary completion would extend the task perhaps to infinity.

<sup>25</sup> No country in the world has entirely eradicated illiteracy.

<sup>26</sup> According to the EFA Global Monitoring Report 2007, Brazil has a school-age population of 13,509,000 divided over four grades (2003). Per grade this is some 3.4 million children, and 18 per cent of these equals 0.6 million. Despite inaccuracies, it seems defensible to say, as a rough estimate, that the absolute number of children that do not reach grade 4 has an order of magnitude of half a million. However, repeating this estimate with more recent data from national sources may produce a different, and possibly more favourable outcome.

### 3.8.3 Uganda – overall diagnosis

Uganda has seen significant overall progress in literacy rates and a slowly closing but still substantial gender gap (literacy rates are 70 per cent for men and 63 per cent for women). One of the main reasons for Uganda's better literacy rate is the impressive gains in primary enrolments since the abolition of school fees. There are concerns, however, about low survival rates and low levels of learning achievement. As to the remaining task, the EFA Global Monitoring Report for 2007 estimates 4.2 million illiterates of 15-65 years old, while the country Uganda has over thirty different languages, with English as the official language. It has a fertility rate even higher than that of Burkina Faso.

With regards to the literacy policy, Uganda is to some extent the mirror image of Burkina Faso. It lacks a well-developed qualification structure, but the capacity of the government programmes had exceeded 400,000 learners in 2004-2005, and may be even higher today. Among the

reasons for this success is that literacy programmes can now be funded from Poverty Action Funds. Halving illiteracy by 2015 should thus be possible, if the quality of primary education could be raised and if repeated enrolment can be reduced substantially.

### 3.8.4 Conclusion

In Brazil and Uganda, the joint capacities of the regular education system and literacy programmes would actually be sufficient to halve illiteracy by 2015, and perhaps even to achieve more ambitious goals. Efficiency seems to be the bigger problem in terms of drop-out, low achievement and repeated enrolment. In Burkina Faso the capacity of literacy programmes is just too small in face of the high illiteracy rate that the inadequate school system allows to continue. However, the infrastructure for literacy programmes is well-organized and seems ready to expand, if more resources became available.

## 4. Unit costs of literacy programmes

We now move from the diagnoses to estimating the unit cost of literacy programmes for the three countries. We need to estimate the cost per learner to find out the overall financial resources required for literacy in each country. As a starting point we take the normative unit cost model presented in chapter 2. Based on the country assessments in the previous chapter, we now adjust and expand this model. We then address multilingualism, followed by the actual calculation of the unit costs.

We emphasize that while some of our choices regarding parameters are unavoidably debatable, the reader can actually alter these parameters according to his or her own views and observe the consequences at macro-level, by means of a spreadsheet-file (Aggio and van Ravens, 2007).

### 4.1 The normative model, Standard Variant

The parameters of the model presented in chapter two are, partly based on normative notions regarding the criteria that a good programme should meet. These norms –adopted by the GMR – are:

- A reasonable salary for the instructor, high enough to motivate him/her to continue to do the job. We assumed a salary comparable to that of a primary school teacher.
- Groups of 20 learners.
- 400 hours of instruction.
- Efficiency and economies of scale, expressed by a teacher salary component of 70 per cent of all costs, leaving no more than 30 per cent for all non-salary costs
- A pass rate of 75%.

No programmes in the three countries or elsewhere contest these parameters. Although some

are of shorter duration, the conclusion was in those cases that they needed to be expanded. The experience with PAS in Brazil was that 240 hours was insufficient. The first level of the government programme in Burkina Faso offers 300 hours, but recognizes the need for the second level of another 300 hours to reach full literacy. The FAL programmes in Uganda were originally based on 100 hours but are now extended to 180 hours under NALSIP. It still offers only basic literacy and acknowledges that many learners have prior learning experience.

Information on retention and pass rates tends to be scarce, but the general impression remains that many programs do not succeed in having 75% of the enrollees complete and pass a final test. However, as we argued in chapter 2, there is a direct link between the pass rate and the extent to which programs meet norms that come forward from the literature (400 hours, groups of 20, et cetera). We maintain the assumption that if norms are met, a 75% pass rate is achievable. This has important financial implications at macro-level: the higher the retention and pass rates, the lower the unit cost per completer and per successful completer (Oxenham, 2002).

While it seems defensible to maintain the normative model, we also came across programs that seem to deserve a special variant. Thus, we shall from here on refer to the normative model as the Standard Variant, which will be flanked by the Volunteering Variant and the Cross-sectoral Variant, to be introduced hereunder.

#### 4.2 The Volunteering Variant

We found a number of examples in Brazil and especially Uganda, where providers successfully reduce costs by the use of volunteer instructors. Based on arguments put forward in section 3.7.3 of the preceding chapter, we therefore propose a Volunteering Variant. Since experience shows that some reward is important to motivate even volunteers, we retain 20 per cent of the salary costs in the Standard Variant, while keeping overhead costs constant. The implications are that the unit cost under Volunteering Variant would equal 44 per cent of those of the Standard Variant, and that the ratio of salary costs to total costs changes from

70 to 32 per cent. Just like the Standard Variant, the Volunteering Variant depends on per capita GNP.

#### 4.3 The Cross-Sectoral Variant

Many literacy programmes also address life skills, such as income generation skills, health skills and social participation. This inspired the Global Campaign for Education and Action Aid International (2005) to adopt a model in which a third year is added to a two year literacy programme –i.e. a ‘literacy first’ approach.

The practice in the three countries, however, is more in accordance with the so-called ‘literacy second’ model. This assumes that poor learners will come to a programme only if it addresses primarily some of their concrete needs in daily life, with literacy being the second benefit. The Reflect and FAL programs are based on the integration of literacy and life skills in the curriculum. This integrated approach may be more cost-effective: rather than adding a third year and thus raising the costs by at least 50 per cent, it thrives on the synergy between literacy and life skills. Learners learn more effectively when they see the benefits of their learning clearly ahead of them. Another advantage is that combining literacy with other skills brings new stakeholders into the picture, as the Brazilian Planfor and Pronera programmes illustrate (see section 3.7.1). Involving other ministries and employers will broaden the financial basis for literacy policies.

We wish to emphasize the transcending nature of this type of programme by baptizing it the ‘Cross-sectoral Variant’. This variant will be more costly than the Standard Variant, because the experience is that most literacy instructors are insufficiently qualified to teach the life skills component; specialized teachers must be recruited, although often difficult to find in remote rural areas (Okech, 2006). Moreover, it seems unavoidable, even in well integrated programmes, that the inclusion of additional skills will increase their duration. We assume a duration of 500 hours with a proportional increase of the non-teacher salary component, doing justice to the slightly more complex nature of the programme. The unit cost would thus be 120 per cent of the Standard Variant, and by implication the Cross-sectoral will depend on per capita GNP..

#### 4.4 Multilingualism

What are the implications of multilingualism for the unit costs of literacy programmes? This question is relevant for all illiterates in Burkina Faso and Uganda, and for groups in Brazil that may be small but may have high illiteracy rates. We think multilingualism has two cost implications, the first minor, the second major. People in multilingual contexts will first need to become literate in the minority language that they already speak (Ouane and Glanz, 2005). If it concerns very small language groups, this may result in some inefficiencies of scale, in that textbooks and curricula need to be developed for just small groups. However, the experience is that this does not raise costs significantly. Textbooks are not always necessary (depending on the pedagogy), while in Papua New Guinea even the development of alphabets for unwritten languages has proven to be inexpensive. Since programmes in minority languages can be combined with volunteerism and/or cross-sectoral approaches, one could argue that the three unit cost variants presented above already provide sufficient variation to accommodate the cost implications of programmes for small language groups. Second, there is the view that after becoming literate in the local language, people also need to learn Portuguese, French or English and become literate in it, in order to acquire access to formal employment and fully participate in society. The qualification structure of Burkina Faso is a good illustration of how learners can go through various levels of mother tongue literacy to eventually become literate in French. This view, however, poses immense political dilemmas. First, one may question the idea as such. Ouane and Glanz (2005) argue that reducing mother tongue literacy to a stepping stone for literacy in the official language excludes many people from literacy based social activities and decision-making processes. Second, the experience in Burkina Faso (where French language programmes have a duration ranging from 1200 to 2400 hours) suggests that the costs of that second step are much higher than that of the first step. In light of scarce resources, should the government subsidize second language programmes for some people, while so many others are still illiterate in their first languages? And if access to salary employ-

ment is one of the driving forces, shouldn't learners themselves contribute? The fact that it will be difficult for poor people to make the upfront investment calls for innovative funding arrangements, possibly involving employers and financial institutions.

Another dilemma is directly related to language policy. Both Burkina Faso and Uganda have struggled in the past with the question of which, if any, language should be the official language. The dominance of French and English has been the outcome. So before deciding upon literacy policies, a clear policy is needed with regards to the position of indigenous languages vis-à-vis the official language. We will return to this issue in chapter 6 on literate environments. For now, we limit ourselves to concluding that the costs of enabling a significant part of the population to learn a second language would be enormous. And considering the lack of resources available for literacy as a whole in these countries, estimating those costs would not be policy relevant.

#### 4.5 Calculation of the unit costs

In the preceding sections of this chapter we proposed three (adjusted) variants:

- The Standard Variant
- The Volunteer Variant, which equals a factor 0.44 of the Standard Variant
- The Cross-sectoral Variant, which equals a factor 1.2 of the Standard Variant.

All three variants depend on per capita GNP so the actual unit costs differ per country. In addition, two extra adjustments must be made.

First, rural literacy providers and learners have needs that are distinct from those of their urban counterparts. They require distinct approaches and policies to help overcome certain barriers such as isolation, lack of access to resources, limited or no public transportation, time needed to cover large distances, inadequate facilities. Rural programmes thus cost more. Along with the obvious additional expense of travel and communication, there are hidden expenses, not only for the delivery of the programme but also for outreach and promotion. We therefore propose a 20 per cent unit price difference, by applying a unit cost of 110 per cent of all three variants in rural areas and

90 per cent in urban areas, keeping the overall outcomes roughly constant.

Second, it can be argued that it can be more expensive to train older people than younger people. They may need spectacles, materials with large print and more help with mastering unfamiliar skills. Therefore it is assumed that is 3 per cent more costly to train someone above 45 years <sup>27</sup>.

These assumptions, common to the three countries, create a difference of 173 per cent

between the most expensive variant (cross-sectoral) and the least expensive (volunteer).

Table 4.1 summarises the unit cost by country and variant. The differences between countries are explained exclusively by the GNP per capita and instructor's salary since all the other parameters are identical. The unit cost by modality varies according to the type of learner. The lower unit cost corresponds to people living in urban areas and below 45 years, while the higher ones correspond to people who live in rural areas and are above 45 years.

Table 4.1 Unit cost per country, variant, localization and age

Variant	Localization	Age	Unit Costs (in US\$ 2004 prices)		
			Brazil (3000, 2.5)	Burkina Faso (350, 5)	Uganda (250, 5)
Standard	Urban	Below 45 years	120.5	28.1	20.1
		Above 45 years <sup>2</sup>	124.2	29.0	20.7
	Rural <sup>1</sup>	Below 45 years	147.3	34.4	24.6
		Above 45 years <sup>2</sup>	151.7	35.4	25.3
Cross Sectoral	Urban	Below 45 years	144.6	33.8	24.1
		Above 45 years <sup>2</sup>	149.0	34.8	24.8
	Rural <sup>1</sup>	Below 45 years	176.8	41.3	29.5
		Above 45 years <sup>2</sup>	182.1	42.5	30.3
Volunteering	Urban	Below 45 years	53.0	12.4	8.8
		Above 45 years <sup>2</sup>	54.6	12.7	9.1
	Rural <sup>1</sup>	Below 45 years	64.8	15.1	10.8
		Above 45 years <sup>2</sup>	66.8	15.6	11.1

Note: Values in brackets refers to GNP per capita (in US\$ 2004 prices) and salary for literacy instructors measured as a proportion of per capita GNP

<sup>1</sup> It is assumed that it is 20 per cent more expensive to train a person in rural areas than urban areas.

<sup>2</sup> It is assumed that it is 3 per cent more expensive to train a person older than 45 years

27 It is emphasized, once again, that these parameters concerning rural areas and age can also be changed in the spreadsheet-file available at the UIL website.

*Box 1 Example of unit costs calculation (Brazil)***Standard Variant**

$$\text{Unit Cost} = \frac{\text{IAS}}{\text{NC}} * \frac{1}{\text{WC/TC}} * \frac{1}{\text{GS}}$$

Where :

IAS = Instructor's annual salary

NC = Number of courses an instructor can deliver per year

WC/TC = % of salary on total cost

GS = Group size

$$\text{Unit Cost} = \frac{3000 * 2.5}{4} * \frac{1}{70\%} * \frac{1}{20} = \text{US\$ } 134$$

**Standard Variant for urban learners below 45 years old**

$$\begin{aligned} \text{Unit Cost} * (1 + \text{Differential costs for urban learners}) &= \\ = \text{US\$ } 134 * (1 - 0.1) &= \text{US\$ } 134 * 0.9 = \text{US\$ } 120.5 \end{aligned}$$

**Standard Variant for urban learners above 45 years old**

$$\begin{aligned} \text{Unit Cost} * (1 + \text{Differential costs for urban learners}) * (1 + \text{Differential costs due to age}) &= \\ = \text{US\$ } 134 * (1 - 0.1) * (1 + .03) &= \text{US\$ } 134 * 0.9 * 1.03 = \text{US\$ } 124.2 \end{aligned}$$

**Standard Variant for rural learners below 45 years old**

$$\begin{aligned} \text{Unit Cost} * (1 + \text{Differential costs for rural learners}) &= \\ = \text{US\$ } 134 * (1 + 0.1) &= \text{US\$ } 134 * 1.1 = \text{US\$ } 147.3 \end{aligned}$$

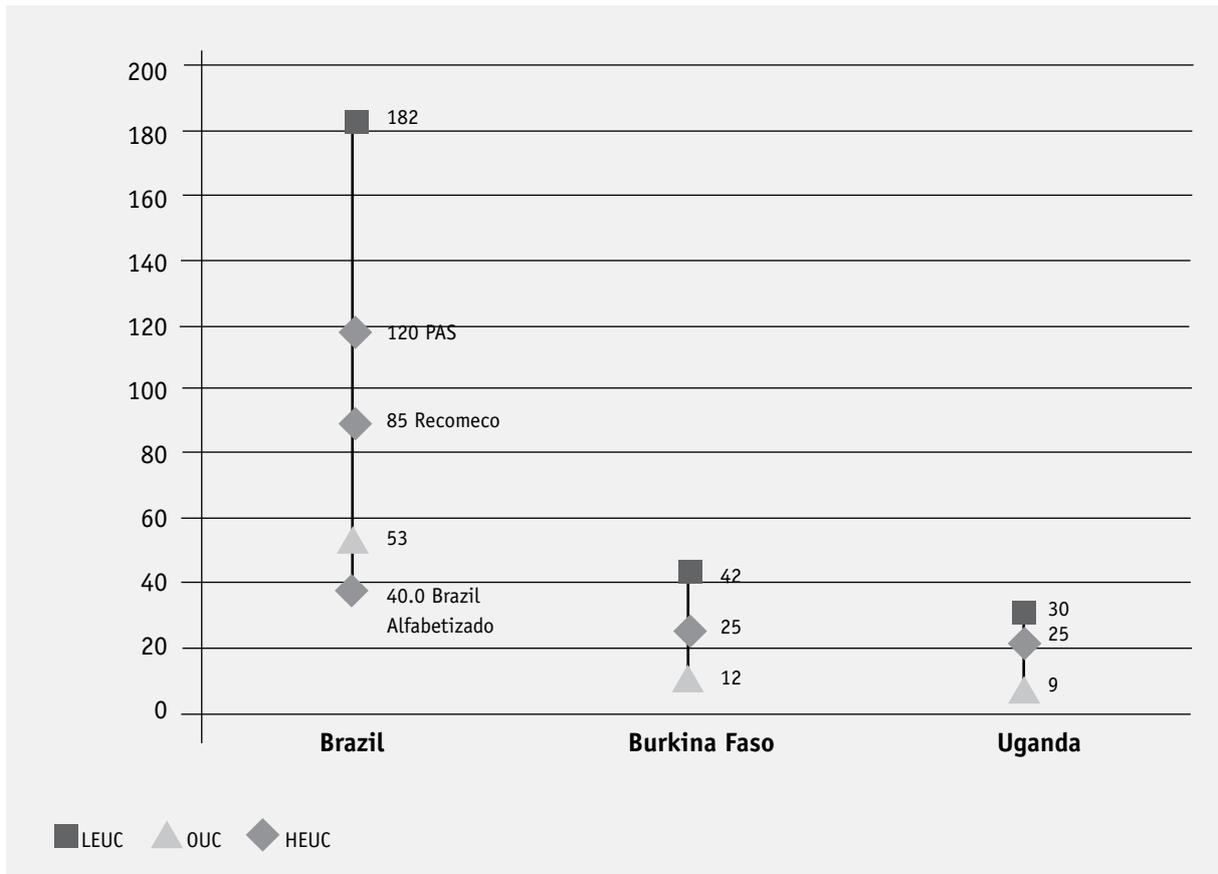
**Standard Variant for rural learners above 45 years old**

$$\begin{aligned} \text{Unit Cost} * (1 + \text{Differential costs for rural learners}) * (1 + \text{Differential costs due to age}) &= \\ = \text{US\$ } 134 * (1 + 0.1) * (1 + .03) &= \text{US\$ } 134 * 1.1 * 1.03 = \text{US\$ } 151.7 \end{aligned}$$

How do these values compare with observed values in the three countries? In chapter 2 we already noted (see footnote 7) that we have "tested" the normative model against a large number of observed unit costs in many developing countries, finding that the outcomes of the normative model compare relatively well with observed values if only outliers (of extremely

cheap or extremely expensive programs) are ignored. We now focus on the three countries in order to assess their observed unit costs against the norms we used for our model. Figure 4.1 compares the observed unit costs of the major government programmes in chapter 3 with the highest and lowest values estimated with the model.

Figure 4.1 Estimated and observed unit costs per country.



Notes: LEUC: Lowest estimated unit costs (i.e. volunteering variant), HEUC: Highest estimated unit costs (i.e. cross-sectoral variant), OUC: Observed unit costs (i.e. actual literacy programmes).

In Burkina Faso and Uganda the observed value lies between the extremes. In Brazil, we can observe that the PAS program sits well in the middle of the range, that the more recent Recomeco program sits clearly lower but still within the range, and that the most recent Brazil Alfabetizado program falls below the range. In other words, in its ambition to provide access to ever increasing numbers of learners, Brazil does not seem to have managed to maintain unit costs at a level where it met the norms of the model. A part of the explanation for the low position of the Brazil Alfabetizado program is its duration, which is clearly below the norm

of 400 hours. However, if one applied the same argument to Uganda by extending the duration of NALSIP from 180 to 400 hours, then the unit costs would exceed even those of the relatively expensive cross-sectoral variant, which proposes 500 hours of training. In other words, the unit costs of NALSIP seem rather high if one takes into account that it is a short programme, the more so since it is essentially based on volunteering (rewards for teachers make up only one fifth of total costs)<sup>28</sup>.

In the next chapter we calculate the total costs for each country.

<sup>28</sup> In 2001, Carr-Hill et al found that the two year FAL program cost only US\$4 per learner per year, or US\$8 in sum, although they added that this level of funding was insufficient. Another Ugandan example of low unit costs is a Reflect program of US\$9 per learner per year, or US\$18 in total.

## 5. Cost estimates for Brazil, Burkina Faso and Uganda

How much will it cost to make a significant reduction in illiteracy in these countries? Which are the regions with the largest needs? This chapter addresses these questions. In particular it helps policy makers to identify the regions and groups where the biggest effort needs to be made in the near future. The cost estimates in this chapter are based on the number of illiterates (quantified in chapter 3<sup>29</sup>) and on the programme unit costs presented in chapter 4. A summary of the tables is included in the background material of this report and can also be seen in the spreadsheet-files.

It must be emphasized that the estimations in the three country sections concern the total number of illiterates according to the most recent data available in each country. In other words, we are looking at the most updated national figure on the number of illiterates

reported by each country. The year reported it is not the same in each country. The concluding section addresses the annual costs of halving illiteracy by 2015, as well as the available budgets.

### 5.1 Brazil

The Brazilian needs assessment showed that there are more than 12 million adult illiterates with 5 million living in rural areas. Almost 80 per cent of the adult illiterate population is concentrated in two regions: Northeast and Southeast. In the Northeast live 50 per cent of the total illiterates with nearly half of them in rural areas. In the Southeast, with a quarter of the total illiterate population, three quarters are located in urban areas. Only the Northeast has an illiteracy rate level above the country's average 12 per cent (table 5.1).

Table 5.1 Number of adult illiterates and illiteracy rate by region; percentages of illiterates living in rural/urban areas (Brazil) (in 2000)

Region	Adult illiterates (15-64 years)				Adult illiteracy rate (in %)
	Total number	As % of total		Total	
		Urban	Rural		
Centre West	670,148	4.0	1.4	5.4	10.2
Northeast	6,732,282	27.6	26.2	53.8	24.3
North	1,095,277	4.1	4.7	8.7	11.2
South	969,767	5.3	2.5	7.7	7.1
Southeast	3,054,435	18.8	5.6	24.4	7.5
<b>Brazil</b>	<b>12,521,909</b>	<b>59.7</b>	<b>40.3</b>	<b>100.0</b>	<b>12.4</b>

Source: IBGE, Censo Demográfico de 2000 ([www.ibge.gov.br](http://www.ibge.gov.br))

<sup>29</sup> The cost estimations included in this chapter are based on total number of adult illiterates in each country. With the exception of Brazil, the age group considered does not coincide exactly with the ones published by the GMR which is 15 to 64. In Burkina Faso it is 10 years and above and in Uganda 15 to 74 years.

From table 5.2 it can be seen that the total costs to eradicate illiteracy is US\$ 1.7 billion for the Standard Variant. These are total costs for the entire period that it takes to achieve the goal. A large proportion of the financial resources would of course need to be allocated in the Northeast and Southeast. It is interesting to note how the differential cost in rural areas affects the distribution of resources. While 40 per

cent of the illiterates live in rural areas, they would receive 45 per cent of the total resources estimated.

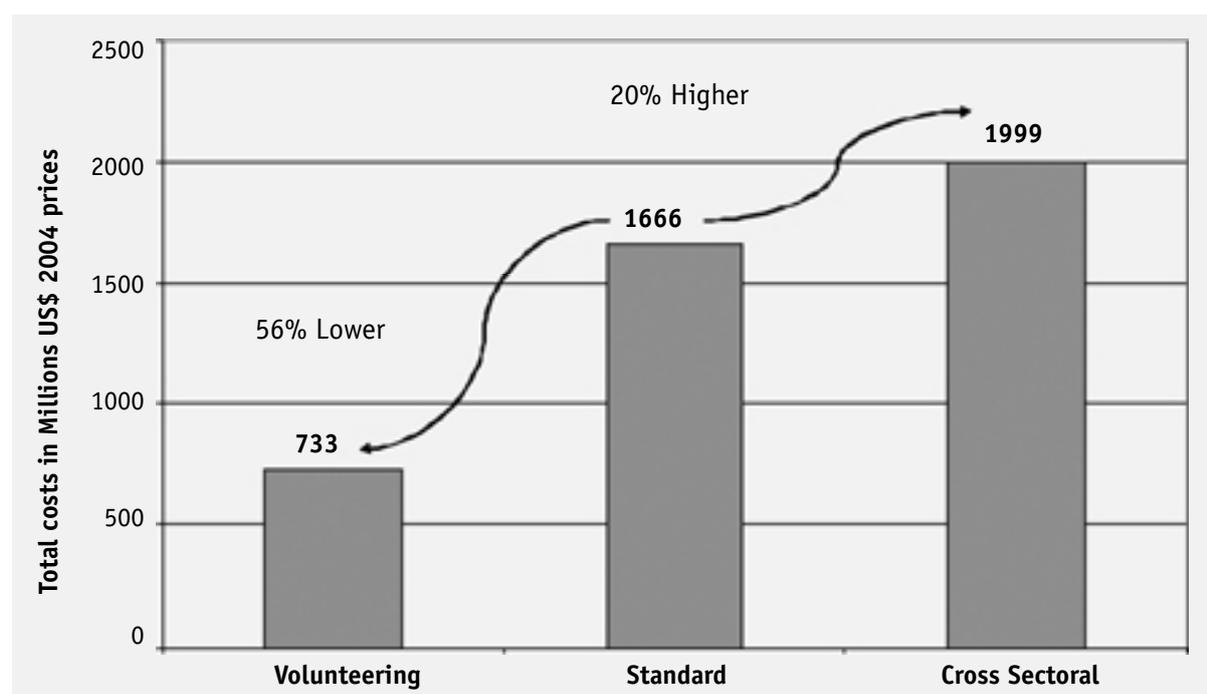
Figure 5.1 illustrates the cost implications of each variant. It shows that Brazil will need, even with the cheapest option, to invest a minimum of US\$ 800 million in literacy in the next years to 2015 to eradicate illiteracy.

Table 5.2: Brazil Regional Distribution of Costs for the Standard Variant to Achieve Universal Enrolment for Literacy in the 2000 Stock of Illiteracy in US\$ million (2004 prices)

Region	Urban	Rural	Total	As % of total
Centre West	61	26	87	5.2
Northeast	422	488	910	54.6
North	62	87	149	9.0
South	81	46	127	7.6
Southeast	288	105	393	23.6
Brazil	914	752	1,666	100.0
As % of total	54.9	45.1	100.0	

Source: Authors own calculations

Figure 5.1 Total costs by Variant (Brazil)



Source: Authors own calculations

In relation to the age of the learners, it can be seen from (table 5.3) that 56 per cent of the resources would be allocated to learners younger than 45 years. It is interesting to note that in older age groups there are more illiterates in urban areas. Thus, the resources allocated in urban areas are higher than in rural areas. As an example, in the age group 55 to 64 the resources needed in urban areas are US\$ 218 million, 50 per cent more than in rural areas.

Table 5.3: Brazil: Standard Variant total costs in US\$ millions 2004 prices per age group and area

	Age Group					Total
	15 to 24	25 to 34	35 to 44	45 to 54	55 to 64	
Urban	126	162	191	217	218	914
Rural	138	151	155	161	148	752
Total	264	314	345	377	366	1,666
As % of total	15.8	18.8	20.7	22.6	22.0	100.0

Source: Authors own calculations

Table 5.4: Burkina Faso Stock of adult illiterates and illiteracy rate by region; percentages of illiterates living in rural/urban areas.

Region	Number of illiterates (10 years or more)				Adult illiteracy rate (in %)
	Total number	As % of total		Total	
		Urban	Rural		
Boucle du Mouhoun	665,590	0.8	11.0	11.8	84.4
Centre	941,681	4.1	12.5	16.7	65.9
Centre East	501,742	0.9	8.0	8.9	87.8
Centre North	549,688	0.5	9.2	9.7	88.6
Centre West	509,364	0.9	8.1	9.0	80.7
East	502,946	0.4	8.5	8.9	88.7
North	538,836	0.8	8.7	9.5	84.4
Sahel	454,944	0.3	7.8	8.1	92.8
South West	283,995	0.2	4.9	5.0	86.6
West	696,980	3.3	9.1	12.3	74.5
<b>Burkina Faso</b>	<b>5,645,766</b>	<b>12.2</b>	<b>87.8</b>	<b>100.0</b>	<b>80.5</b>

Source: INSD (2000)

30 It has to be noted that in this case the illiteracy rates are calculated for people of 10 years or higher

## 5.2 Burkina Faso

The needs assessment in Burkina Faso shows a dramatic situation. There are more than 5 million illiterates who constitute about 80 per cent of the population. With the exception of the central region, all the other have an illiteracy rate of 75 per cent or higher<sup>30</sup>. However, as the central region is the most populous one, the larger number of illiterates, almost one million, resides there. As table 5.4 reveals, the challenge is immense. More than three quarters of the population needs to be trained by the remaining quarter. The fact that Burkina Faso is a multilingual country makes this task even more difficult.

From table 5.5 it can be seen the standard variant total costs to eradicate the current stock of illiterates is US\$ 190 million. This figure corresponds to the entire period that it takes to achieve the goal. Ninety percent of the resources needed would be allocated in rural areas. In principle, the resources would be evenly distributed among regions. The Centre is the region

that requires the highest percentage of the total resources, 16 per cent and the South West would need 5 per cent.

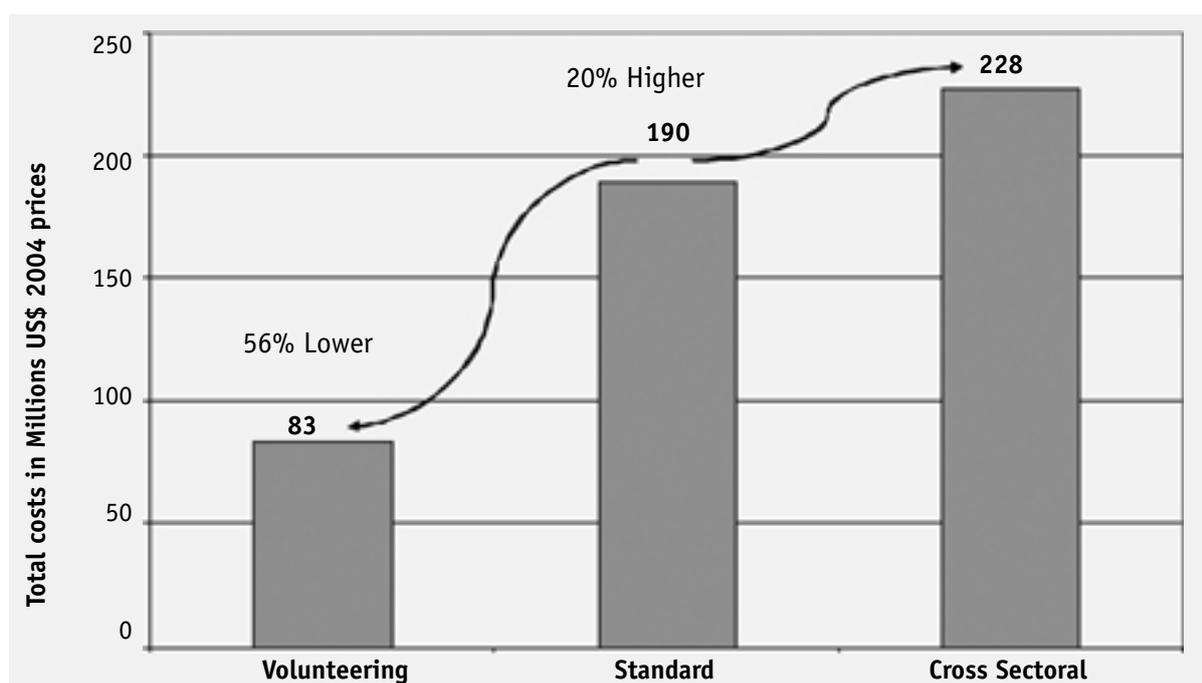
Figure 5.2 implies that, even with the cheapest variant, Burkina Faso will need to invest not less than US\$ 80 million in literacy in the next years to 2015.

Table 5.5: Standard Variant total costs in millions US\$ 2004 prices (Burkina Faso)

Region	Urban	Rural	Total	As % of total
Boucle du Mouhoun	1.3	21.3	22.6	11.9
Centre	6.6	24.3	30.9	16.3
Centre East	1.4	15.6	16.9	8.9
Centre North	0.9	17.9	18.7	9.9
Centre West	1.4	15.8	17.2	9.1
East	0.7	16.4	17.1	9.0
North	1.3	17.0	18.2	9.6
Sahel	0.4	15.1	15.5	8.2
South West	0.3	9.4	9.7	5.1
West	5.2	17.6	22.8	12.0
Burkina Faso	19.4	170.4	189.8	100.0
As % of total	10.2	89.8	100	

Source: Authors own calculations

Figure 5.2 Total costs by Variant (Burkina Faso)



Source: Authors own calculations

Table 5.6: Standard Variant total costs in millions US\$ 2004 prices per age group and area (Burkina Faso)

Age group	Rural	Urban	Total	As % of total – 10 to 14 age group)
10-14	33.0	2.6	35.6	
15-19	25.8	2.7	28.5	18.3
20-24	17.9	2.4	20.3	13.1
25-29	16.3	2.2	18.5	11.9
30-34	14.3	2.0	16.3	10.5
35-39	12.0	1.6	13.6	8.8
40-44	10.2	1.3	11.5	7.4
45-49	8.7	1.0	9.7	6.2
50-54	8.3	1.0	9.2	5.9
55-59	6.3	0.7	7.0	4.5
60 +	19.0	2.0	21.0	13.5
Total	171.6	19.5	191.1	
Total minus <b>10- 14 age group</b>	<b>138.7</b>	<b>16.9</b>	<b>155.6</b>	<b>100.0</b>

Source: Authors own calculations

Note: The 10-14 age group are not considered adults. This row is included here to make these figures comparable with those presented in table 5.6 where it is not possible to extract this group age.

In relation to the age of the learners, table 5.6 shows that two thirds of the resources would need to be allocated to generations below 45 years. This high percentage can be explained by a number of factors. On the one hand, the inadequate education system fails to educate the younger generations, on the other hand the population pyramid in Burkina Faso has a large base of young people. In Burkina Faso more than any other country, the most effective literacy policy would be to enlarge the primary education system considerably.

### 5.3 Uganda

The data availability for Uganda are different from the other two and therefore the main results of the cost estimates are presented in a slightly different way. In Uganda, there are almost 4 million adult illiterates (UBOS, 2004)

and 94 per cent of them live in rural areas (table 5. 7). One third of the adults that live in rural settings are illiterate. The number of illiterates is evenly distributed among the four regions. However, they represent around 40 per cent of the adult population in the North and the East part of the country.

Table 5.8 presents the standard variant total costs to eradicate the current stock of illiterates which is US\$ 95 millions. These are total costs for the entire period that it takes to achieve the goal, and 95% needs to be allocated in rural areas.

The regional distribution of the resources would be evenly distributed. Figure 5.3 shows that each of the four regions would receive around quarter of the total financial resources estimated. The central region would receive the lowest percentage (21%).

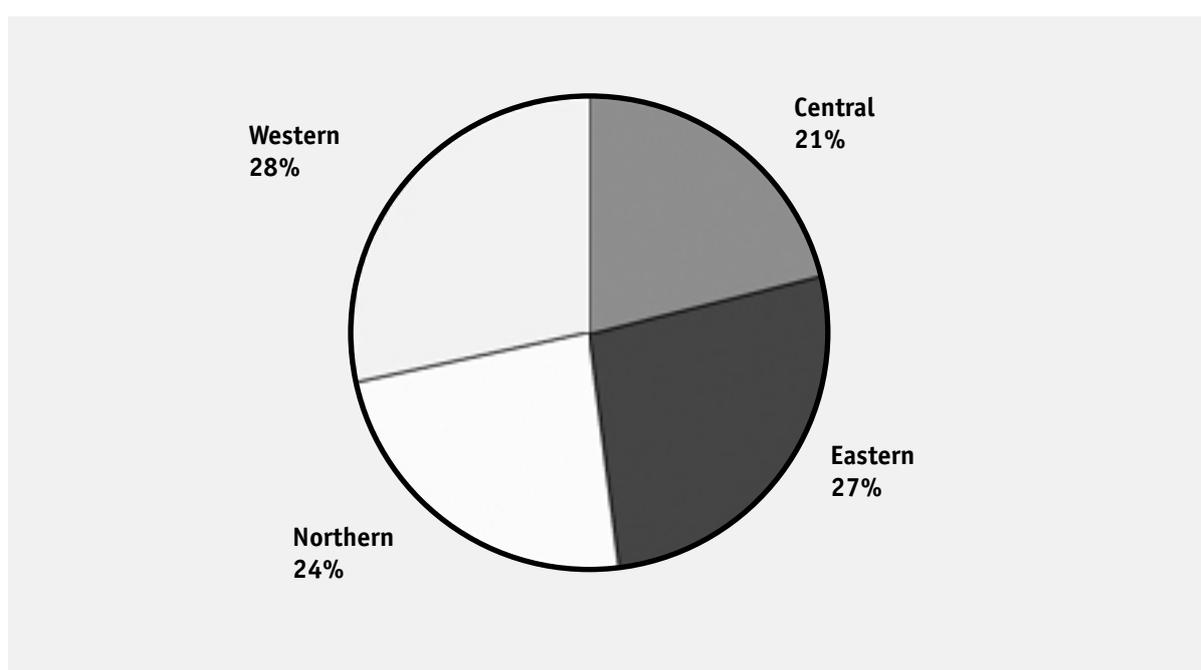
Table 5.7: Number of adult illiterates and illiteracy rate by region; percentages of illiterates living in rural/urban areas (Uganda)

	Adult illiterates (15 to 74 years)		Adult illiteracy rate
	Number of illiterates	As % of total	
Urban	218,061	5.6	13
Rural	3,669,752	94.4	33
Central	816,277	21.0	21
Eastern	1,055,988	27.2	37
Northern	918,315	23.6	44
Western	1,097,233	28.2	26
<b>Uganda</b>	<b>3,887,813</b>	<b>100.0</b>	<b>30</b>

Table 5.8: Standard Variant total costs in millions US\$ 2004 prices (Uganda)

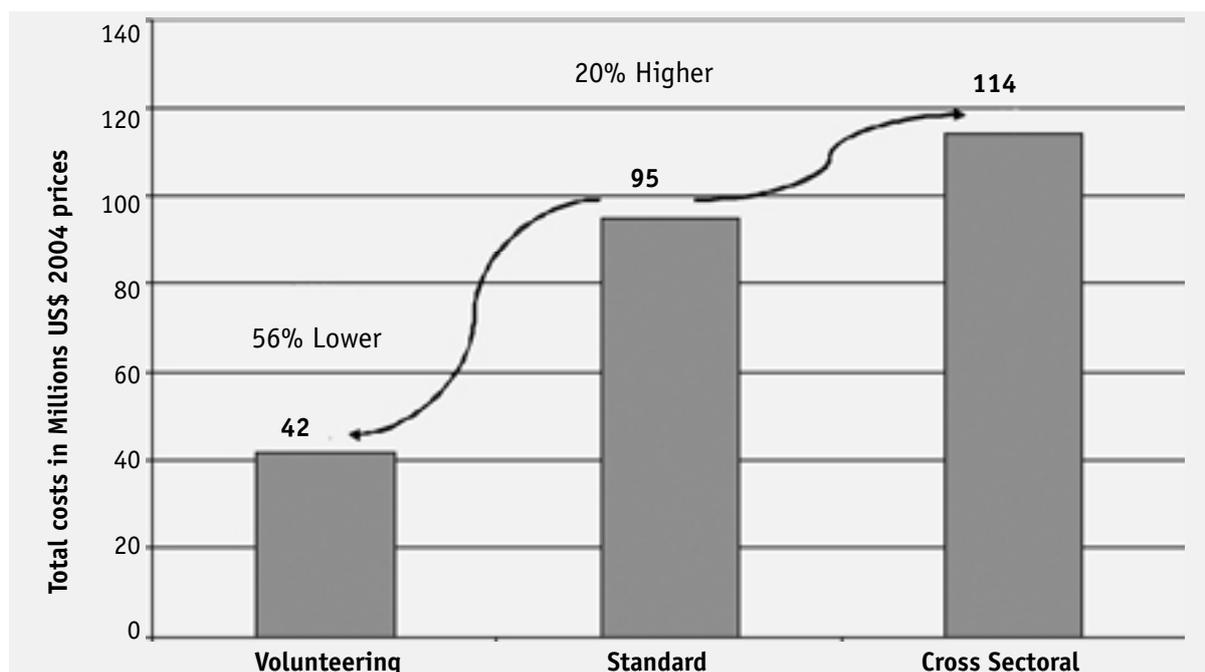
	In US\$ millions	As % of total
Urban	4.4	4.6
Rural	90.9	95.4
<b>Total Uganda</b>	<b>95.3</b>	<b>100.0</b>

Figure 5.3 Regional distribution of the financial resources estimated with the standard variant (Uganda)



Source: Authors own calculations

Figure 5.4 Total costs by Variant (Uganda)



Source: Authors own calculations

Table 5.9: Standard Variant total costs in millions US\$ 2004 prices per age group and area

Age group	Rural	Urban	Total	As % of total
15 to 29	2.1	35.6	37.7	39.6
30 to 44	1.2	27.1	28.3	29.7
45 to 59	0.6	15.7	16.3	17.1
60 to 74	0.5	12.5	13.0	13.6
<b>Uganda</b>	<b>4.4</b>	<b>90.9</b>	<b>95.3</b>	<b>100.0</b>

Source: Authors own calculations

Table 5.10: Annual costs of halving illiteracy by 2015 per unit cost variant (x1000 US\$)

	Variant		
	Standard	Volunteer	Cross-sectoral
Brazil	138,834	61,087	166,600
Burkina Faso	15,816	6,959	18,980
Uganda	7,941	3,495	9,529

Figure 5.4 shows that, even with the cheapest variant, Uganda will need to invest no less than US\$ 42 million in literacy in the next years to 2015.

In relation to the age of the learners, it can be seen that 70 per cent of the resources would be allocated to learners younger than 45 years (table 5.9). In contrast, the older generations would require a significantly lower percentage of the budget

#### 5.4 The annual costs and budgets for halving illiteracy

As said, the cost estimations in the preceding country sections concern the current number of illiterates (stock). In order to calculate the annual costs of halving illiteracy, one must:

- divide the outcomes found above by a factor 2 to obtain the Jomtien challenge;
- divide the Jomtien challenge by a factor 8 to obtain the annual cost requirements, because eight is the number of years that separate us in 2007 from 2015,
- multiply by a factor 100/75 in order to take the assumed pass rate of 75% into account<sup>31</sup>.

This is done in table 5.10.

Important: when interpreting the final outcomes in table 5.10, one must keep in mind that they are based on the most recent stock take of illiteracy in each of the countries. The figures do not take into account the other flows of the analytical framework. This means that the estimations are most probably under-estimations, especially in the case of Burkina Faso and Uganda, where large numbers of illiterate children enter the stock annually and many literate adults may lose their skills. This is much less the case for Brazil, where the fertility rate is lower, and where the Fazenda Escola programme addresses young illiterates.

It is possible to take these flows into account and apply the analytical framework more exhaustively, but this would require a more detailed in-country study. For a more general

assessment of the joint effect of the flows we refer to chapter 3, section 8.

Brazil's present annual literacy budget of about US\$90 million sits between our estimation for the standard variant and the volunteering variant, which is in accordance with the fact that literacy teachers in Brazil are in practice "semi-volunteers"; officially they are volunteers but they do receive some remuneration. Furthermore, we assume (and recommend) a duration of 400 hours, which exceeds the Brazilian duration.

The budget of Burkina Faso is somewhat difficult to establish. According to Tiendrebeogo-Kaboret and Matabe (2006), the budget of FONAENF has risen steadily in recent years to a level of nearly US\$5 million in 2004-2005. On the one hand, this concerns not just the initial literacy programme but also the more advanced courses that Burkina Faso offers, while on the other hand FONAENF is not the only source of funding for basic literacy. However, if we do take the US\$5 million as a very general reference point, it would be broadly sufficient if the programmes were delivered by volunteers, but insufficient in light of the Standard Variant. And once again: the figures ignore the many children that grow up illiterate in Burkina Faso

Uganda had a budget of US\$85.4 million for a five-year plan, NALSIP, that covers the period 2002-2007. This would come down to US\$17 million annually, and this is actually higher than our Standard Variant estimate. One reason could be, as said earlier, that Uganda seems to have leaped from extremely low unit costs in the past towards unit costs that are higher than necessary, especially in light of a rather short duration and limited remuneration of instructors. A lump sum in the order of US\$85 million could well be used for a more balanced plan, spread over a longer period of time, with programmes of longer duration that prevent people from enrolling repeatedly, and for scaling up programmes for children who do not complete school, such as the BEUPA.

<sup>31</sup> The logic behind this is that out of each 100 enrollees, only 75 are assumed to complete the program and pass the test. So in order to get an X-number of passers, one needs  $100/75 \times X$  enrollees.

## 6. Investing in the literate environment

In chapter 3 we addressed the literate environment in a general sense. Table 3.8 in chapter 3 gave an impression of the situation in the three countries, based on a rather limited set of available indicators of access to the following media: newspapers, periodicals, radio, TV and internet. For obvious reasons, TV and especially radio are about oracy rather than literacy, although access to these media does connect people to the public sphere and may thus help create a wish and a demand for literacy. In any case, important aspects of the literate environment are missing from table 3.8 such as textbooks; books in general; posters; street-signs and other written expressions in the public space; official documents and forms. Moreover, as Fagerberg-Diallo (2006) emphasizes, the full use of literacy involves not only reading but also writing.

To stimulate both reading and writing in this broader range of contexts requires an equally broad range of policy interventions. These would be difficult to incorporate directly in the concept of unit costs (although there is one exception as we shall see below). The general idea behind unit costs is that the total costs of a policy intervention are divided by the number of beneficiaries reached. This is possible only when that group of beneficiaries can somehow be demarcated. In many policies to strengthen the literate environment, however, it is not possible to attribute the fruits of that policy to the supposed beneficiaries.

An example is the choice of the language in the public space. If street-signs, documents, forms and other written expressions are in the official language instead of the relevant indigenous language, those who are literate in only that indigenous language find their use of literacy skills so severely restricted (Fagerberg-Diallo, 2006; Ouane and Glanz, 2005) that they could not be counted as beneficiaries. Thus it would be good to shift towards the use of the indigenous language, or towards a bilingual system (Fagerberg-Diallo, 1999). This will not always be

easy from a political point of view, but it would not require substantial financial investments on an ongoing basis.

Periodicals are similarly difficult to attribute. When written in an indigenous language they can form a very important tool in strengthening the literate environment, as the experience in Burkina Faso shows (Api, 1988). But to estimate their costs per reader is difficult. One could, for instance, decide to make one copy of a weekly newspaper available for, say, every five newly literates. But one could not prevent copies reaching other individuals as well, or instead. Moreover, we have found very few concrete indications of operational costs in this area, and they are just too scarce and varied to form the basis for a general costing model or formula. However, in light of Table 3.8 and conditions in countries like Brazil, Burkina Faso and Uganda, making available 50 copies per 1,000 potential readers in a given language would make a good start. Local production and distribution costs could be calculated on that basis.

An interesting alternative is the medium of periodical wall-posters, such as Thailand applies as part of its literate environment policy. Posters can be produced and distributed against relatively limited cost and reach very large numbers of people, so that the unit costs are utterly low. One could also envisage that people are encouraged to submit short articles and responses, thus creating an active readership and stimulating public debate.

In the area of production and distribution of books, Brazil has found a creative way to resolve the problem of attribution. Names and addresses of participants of the Brazil Alfabetizado program are made available to local post offices that deliver books to newly literates and collect them two weeks later, so they circulate within the group of learners (Henriques and Ireland, 2006).

A more community based approach to stimulate the reading and the writing of books is pursued by ARED in Senegal. This organisation supports the development of a literature in the Fulani or Pulaar language, publishes and sells tens of thousands of copies per year (41,000 in 2000), and acts as a patron that gives authors a chance to publish. The Pulaar are an ethnic group with strong pride and tight social cohesion, key factors in succeeding to create a market for books with only limited support from a foreign donor. No less than 75 per cent of ARED's cash flow comes from book sales, and the remaining part comes from subsidies and ARED's own investment funds (Easton and Fagerberg-Diallo, 2001).

Although ARED may be the best practice, its history does indicate that it is possible to strengthen the literate environment through community based initiatives, with relatively little seed money. Easton (2006), too, underscores the critical importance of local training systems at grassroots level for the development of a sustainable literate environment. Making essentially the same point, Diagne (2006) adds that didactic materials in indigenous languages have been produced on a large scale in Côte

d'Ivoire, Burkina Faso, Senegal and Niger, and that local networks and independent distributors have been more successful than the more official organisations.

Nevertheless, independent distributors, while being more responsive to the needs of minority groups, encounter problems as well. They may lack the scale to operate efficiently and to develop high professional standards both technically and content-wise. They may also be hindered by high taxation on such basic materials as ink and paper, and also by the absence of national policy frameworks, e.g. in the areas of copyright, prizes, quality standards, terminology and orthography (ADEA/GTZ/UIE, 2005).

Finally, Diagne (2006) notes forms of resistance to the literary development of indigenous languages, even among the population. The reason is that, since access to salary employment and influential positions in society requires being literate in the official language, diverting resources to other languages is perceived as a wasteful distraction. This may be the most profound dilemma in literacy and language policy, but lies beyond the scope of this paper.

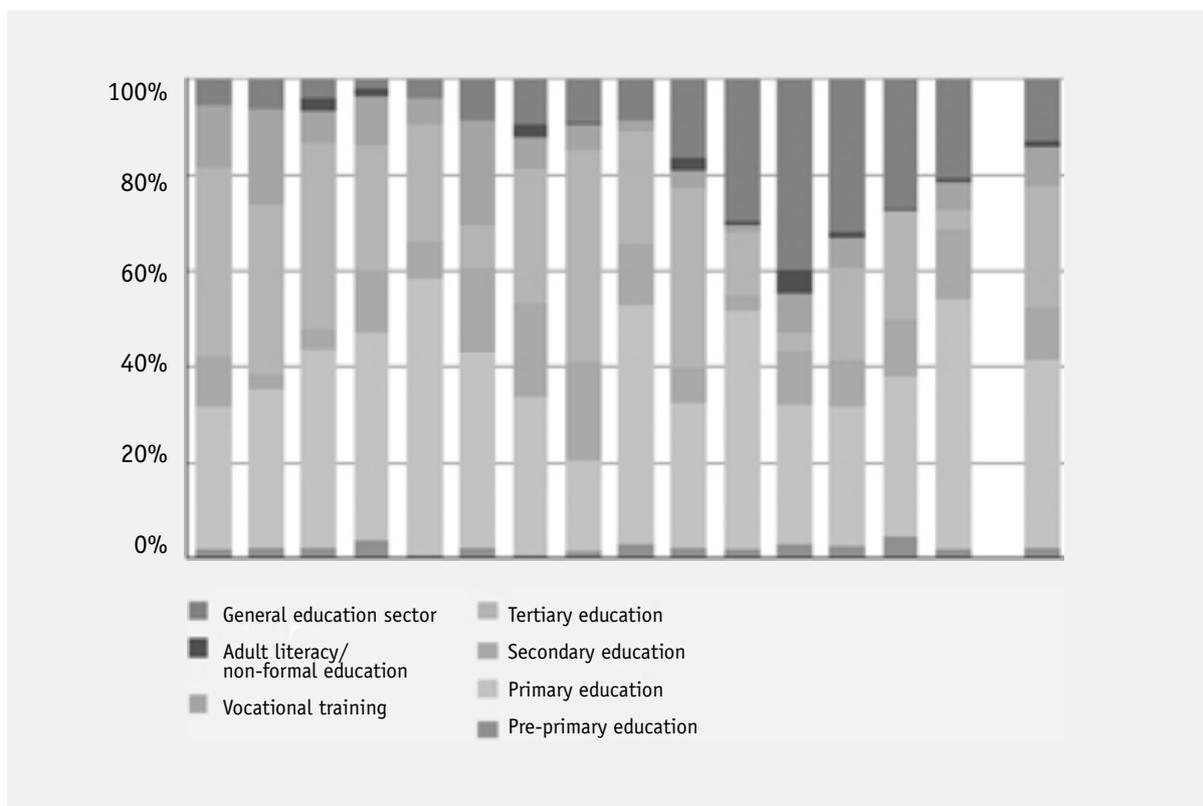
## 7. Sources for funding

Estimating costs is one issue, finding the resources to cover those costs is another. The financing of adult literacy and non-formal education programmes varies with the national context. The establishment of partnerships with the private sector, international donors and the diversification of public financial resources makes financial resources more easily accessible (Oxenham, 2002). In this chapter we first look at the scope for increased funding from World Bank lending and ODA, and then at various other sources, both national and international.

### 7.1 The scope for increased funding from World Bank lending and bilateral aid

The GMR-2006 (page 116) provides a breakdown of World Bank lending by education sub-sector. Figure 7.1 indicates that adult literacy and non-formal education (dark brown) have received but a small share of all education related lending since 1990. A decrease in lending for tertiary education over the years and, more recently, a decrease in general lending for the education sector could provide the scope for a larger share for literacy. However it seems that the sub-sector that benefits most is primary education, which has a crucial role in reducing illiteracy over time but does not address adults.

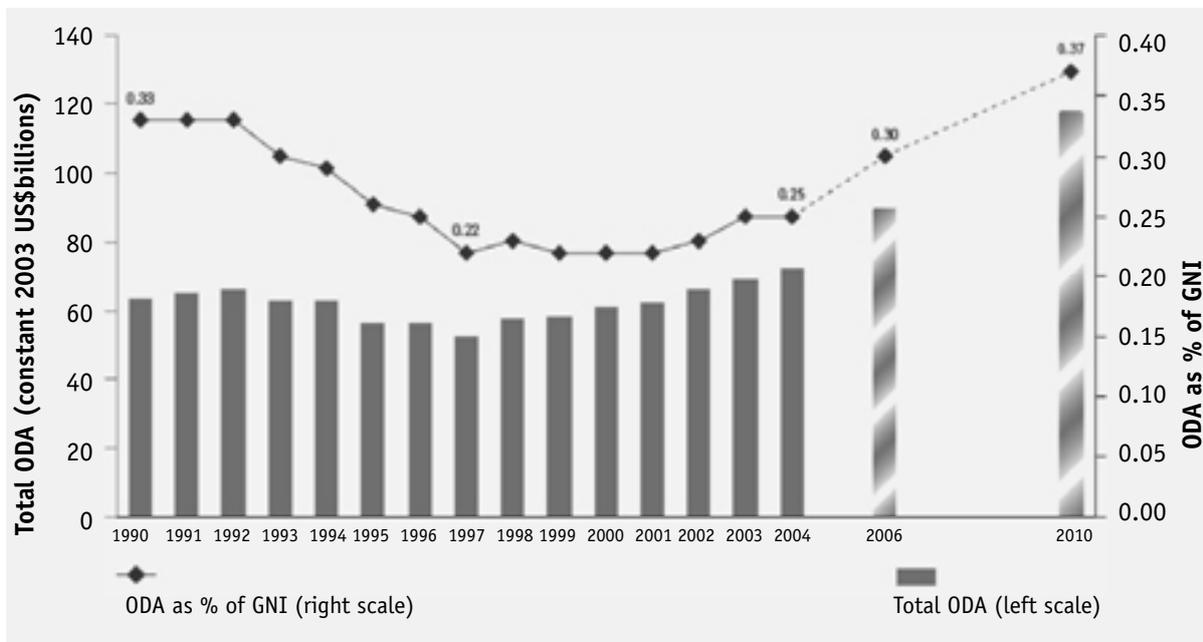
Figure 7.1: Composition of total World Bank lending for 1990-2004



Note: General education sector includes lending to more than one sub-sector

Source: World Bank (2005a)

Figure 7.2: DAC members' ODA 1990-2004 and simulations to 2006 and 2010 (amount in constant 2003 US\$ billions and % share of GNI)



Source: Communication from OECD-DAC, August 2005

Note:

1. DAC members' ODA is the sum of bilateral aid and contributions to multilateral donors. Therefore the figures are different from the total ODA in Fig 4.1 which shows total aid received from DAC donors, multilateral donors and non-DAC bilateral donors.
2. The total DAC ODA for 1991, 1992, 1993 excludes debt forgiveness of non-ODA claims. It is included in the individual donors' data, and thus the total of individual donors for these years will be higher than the figures shown in this graph.
3. Simulations are based on donors' ODA undertakings and estimated growth rates.

Table 7.1: Total ODA to education and basic education, five-year annual averages for 1999-2003 and 2003 (constant 2002 US\$ billions)

	1999-2003 average		2003	
	Education	Basic education	Education	Basic education
Bilateral donors (DAC Countries)	4.44	0.91	4.65	1.16
Major multilateral donors	1-31	0.59	1.66	0.94
<b>Total ODA</b>	<b>5.53</b>	<b>1.50</b>	<b>6.31</b>	<b>2.10</b>

Source: Aid data annex, Tables 1.1 and 2

Note: Multilateral donors are those included in Table 4.5.

Admittedly, World Bank lending is only one of several potential sources of funding, domestic educational expenditure being the most important one on the long run. However, there is no indication that the share for adult literacy in domestic education expenditure is much larger than it is in other sources. In fact, the GMR reports that this share is typically in the order of 1 per cent.

A substantial increase of that share will be difficult to achieve, since so many developing countries are battling to achieve UPE, which, rightly or wrongly, receives most of their attention and indeed by far most of their education budget. Thus, increased funding for literacy would have to come, at least partly, from other sources, for instance, Official Development Assistance (ODA) given by bilateral donors. Table 7.1, also copied from the 2006-GMR (page 118), shows that even a continued increase of ODA to basic education from US\$1.5 billion in the period 1999-2003 to US\$2.1 billion in 2003 and hopefully further onwards, will not be sufficient for reaching UPE alone, since that would require an increase of ODA by US\$5.6 billion on top of its level in 2002.

Now, the overall perspective for ODA for the coming years may be positive, as figure 7.2 suggests. But it will be a challenge for the international literacy community to make clear that adult literacy is key to development and thus deserves a substantial share of the possibly expanded financial space.

Finally it is important to note that Burkina Faso and Uganda are part of the Fast Track Initiative (FTI). While Burkina Faso endorsed it in 2002, Uganda is expected to do so in 2008<sup>32</sup>. Both countries also have a relatively high presence of international donors and belong to the group of countries that receive aid from a large number of donors in education<sup>33</sup>. This reflects the international community's interest in contributing to the improvement of these countries' education sectors and gives them the opportunity to advocate for more resources for adult literacy. In contrast, in Brazil, the magnitude of the donor's financial contribution to education is negligible compared with the substantial domestic expenditures on education. Nevertheless, the UNESCO Office in Brazil has managed and assisted in various successful education projects including some in literacy.

## 7.2 Other sources, national and international, public and private

Yet a strategy aimed predominantly at supporting adult literacy through increased international aid flows runs the risk of failing to raise sufficient resources. A more diversified approach may be preferable, entailing a variety of additional, if not 'alternative' sources. Examples found in the three countries and elsewhere include:

- Multinational corporations that are actively pursuing corporate social responsibility (CSR) activities as a competitive strategy. Consum-

<sup>32</sup> FTI Secretariat (2006) Status Report prepared for the EFA-FTI partnership meeting Cairo, Egypt November 13-14, 2006

<sup>33</sup> Burkina Faso and Uganda receives aid to education from 9 and 8 bilateral donors respectively. Tanzania is the country with the largest number of 12 (UNESCO, 2006, Table 4.5:93)

ers in developed countries are increasingly interested in products that are not only useful but are supplied by socially responsible businesses. In response, growing number of firms are engaged in social activities directly or funding projects in different social areas. A clear opportunity to raise additional funds for literacy presents itself. For example, Telefonica (the biggest communication company in Latin America) has engaged in literacy projects in Chile and Morocco (Telefonica Annual corporate responsibility Report, 2005). The numbers of people involved make it obvious that they will not solve the whole problem, but in a scenario of scarcity, their small contribution obviously helps.

- Philanthropic foundations have a large role in this kind of funding. Although the figures should be treated with caution (some foundations prefer a low profile, often from a sense that publicizing such work is undignified or improper) an OECD study has found that their contributions to education form the second largest proportion after health and family planning (OECD, 2003).
- In addition to considerations of good governance and philanthropy, private enterprises may also have a more economic interest in engaging in adult literacy. For instance, the media and ICT sectors have an interest in increasing the numbers of literate youth and adults, since it directly expands their potential markets. Of course, this could lead to conflicts of interest, while there is also a risk that certain linguistic minorities could be neglected, because the coverage of their language is too limited to be of interest. Yet, under certain conditions, this type of private involvement may be a part of the solution.
- Brazil provides an example of how to create good conditions for private involvement. Its runs a government arrangement – described in chapter 3 – in which private enterprises that see an interest in a better educated local workforce, can buy into literacy programmes under conditions that are set and safeguarded by the government. NGOs of various kinds such as religious organisations, charity organisations and others can also contribute.
- The concept of a national fund for literacy is an equally interesting mode for mobilizing resources from technical and/or financial partners, be they national or international, public, semi-public or private. The experience of Burkina Faso with its FONAFEN fund (Tien-drebeogo-Kaboret and Matabe, 2006) has led to a rapid increase of the total capacity of adult literacy programmes. Combined with the faire-faire strategy adopted from Senegal, it allows the government to outsource the delivery of programmes to operators, but, as in Brazil, under conditions set by the government.
- A more recent strategy to mobilize alternative resources for education, including literacy, could be the so-called debt conversion for education. It is defined as the cancellation of a part of a country's debt in exchange for a commitment to allocate the freed resources to education. The economic rationale is based on the willingness of a creditor, in this case a creditor government, to cancel debt owed by a debtor government in exchange for the debtor setting aside an agreed amount of funds (Norris, 2000). Doing so is a way of reducing a government's debt burden and at the same time increasing resources for the education budget. Initially the idea gained consensus only among debtor countries, but in 2004 Spain publicly expressed its support and announced an agreement with Argentina (Aggio, 2005). The number of agreements is still limited. According to a recent study by the Global Campaign for Education (2006), there are four countries with similar agreements Ecuador, Nicaragua, Honduras and El Salvador. It is uncertain yet if these projects will motivate other donors to pursue similar initiatives. However, governments should consider this source as one of the options to raise funds for literacy work.
- Last but not least important is the step taken by Uganda described in chapter 3 (see also Herbert, 2006). On the grounds that illiteracy is strongly associated with poverty, it was argued that literacy programmes should become eligible to be financed from Poverty Action Funds. This has enabled Uganda to mobilize a substantial amount of money for the national literacy plan NALSIP.

## 8. Concluding summary of observations

1. Brazil, Burkina Faso and Uganda are pursuing active and substantial literacy policies.
2. However, whether the goal of halving illiteracy by 2015 can be reached depends not only on the capacity and quality of adult literacy programmes, but also on primary and other forms of basic education, the quality of the literate environment, demographic factors and migration. A holistic approach is needed for monitoring and policy making.
3. For Brazil and Uganda, the diagnosis is that the joint capacities of primary education and adult literacy programmes could be sufficient to halve illiteracy by 2015, provided that problems of efficiency and quality are resolved.
4. In Burkina Faso, the capacity of the literacy programmes is just too limited to deal with the enormous challenge of raising a literacy rate of 22 to 61 per cent against the backdrop of low enrolments in primary education. But the country has a good policy infrastructure in place for adult literacy, which deserves to attract more resources.
5. Multilingualism characterizes all of Burkina Faso and Uganda and minorities in Brazil. After the acquisition of mother tongue literacy there is a strong demand to learn the country's official language and to become literate in it. The costs of satisfying this demand would be high.
6. The literate environment is very poor in Burkina Faso and Uganda, and possibly among linguistic minorities in Brazil. Few speakers of indigenous languages have access to the written word, despite some good policies, especially in Burkina Faso. Substantial investments would be needed to improve the situation.
7. The annual costs of halving just the present number of adult illiterates between 2007 and 2015 would amount to some US\$140 million in Brazil, US\$16 million in Burkina Faso, and US\$8 million in Uganda. The underlying assumptions are that the duration of the programme is 400 hours; group-size is 20; instructors are paid as primary school teachers; and non-salary costs do not exceed 30 per cent of total costs. Using volunteer teachers would reduce these cost requirements by more than half, but requires a high degree of social cohesion. In Brazil, less than 5 per cent of the resources would go to rural areas, whereas in Burkina Faso and Uganda more than 90 per cent would.
8. Innovative approaches to funding exist in all three countries. The potential to involve ranges of contributors has been proven: domestic as well as foreign, and public and well as private partners can share the responsibility. In Brazil, a governmental arrangement achieves this and Burkina Faso has created a national fund. In Uganda, literacy programmes are now co-financed from Poverty Action Funds.

## 9. Recommendations

1. We recommend the use of the analytical framework (see chapter 3), both to monitor the development of illiteracy, and to formulate and implement literacy policies. It is critically important to take into account not only the capacity and quality of literacy programmes, but also the capacity and quality of primary education, the literate environment, demographic factors, and migration. At country level it is possible to monitor the stock and the flows more closely than we have been able to do.

2. We also recommend the use of the normative model for unit costs (chapters 2 & 4). It can serve to guarantee a minimum quality level and safeguard cost-effectiveness. If users of the model disagree with the parameters chosen in this report, they can tailor them to their own needs and adapt them to national and local circumstances.

3. Clear definitions, standards and measures of literacy are needed, as well as harmonization between primary education and literacy programmes. A qualification structure – as in Burkina Faso – should distinguish basic and advanced literacy.

4. Attracting more resources remains a priority. In countries like Burkina Faso, increased funding is urgently needed to scale up the literacy efforts, while countries such as Brazil and Uganda need a higher level of investment to raise the quality and the duration of programmes. Training and remuneration of teachers also requires more financial resources. We recommend the use of funds for poverty reduction, as in Uganda, since literacy is demonstrably a key factor in combating poverty.

5. An important way to cut costs – and hence to reach more illiterates on a given budget - is the use of volunteer teachers. This can be recommended on the condition that there is tight social cohesion, which is often the case for lin-

guistic minorities. The publication of books and magazines in the indigenous language can enhance the conditions in which programs based on volunteering are potentially successful.

6. Another strategy to reduce costs is to limit non-salary costs to for instance 30 per cent of total costs (unless instructors are volunteers in which case the share of the non-salary component is larger)..This strategy requires economies of scale, but not necessarily large, uniform programmes. Experience in the countries shows that major government projects can serve as an umbrella for a diversity of programmes that are tuned to local needs. A condition for small yet efficient programmes is that they have a common paradigm, such as functional literacy or Freirean approaches.

7. For pedagogical reasons, schools as well as adult literacy programmes should always use the mother tongue as a starting point. But if the mother tongue is a minority language, there is usually a further demand for learning the official language and becoming literate in that as well. In Brazil this may be affordable in time but for poor and strongly multilingual countries like Burkina Faso and Uganda this seems not a realistic objective as long as so many people are illiterate even in their mother tongue.

8. Strengthening the literate environment for the indigenous language, thus enhancing the use for mother tongue literacy, may reduce the need to learn the official language. This, however, is a matter of language policy as much as literacy policy.

## 10. References

Kindly note that the EFA Global Monitoring Report of UNESCO is usually referred to in the text by its acronym GMR, followed by the relevant edition, e.g. GMR-2006.

Abadzi, H. 2003. *Adult Literacy. A Review of Implementation Experience*. Washington D, World Bank

Abadzi, H. 2004. *Strategies and policies for literacy*. Washington, World Bank

ADEA/GTZ/UIE 2006. *Proceedings of the regional conference and expert meeting on bilingual education and the use of local languages*. Windhoek, Namibia, 3-5 August 2005. Windhoek, GTZ

Aggio, C and van Ravens, J. 2007. *Costs Estimates for Brazil, Burkina Faso and Uganda*. Interactive spreadsheet-file. Background document for this report. UIL-website.

Aggio, C. 2005. *Debt conversion for education. The case of Spain and Argentina*. Background Paper for the EFA Global Monitoring Report 2006.

*Alfabetização Solidária, (2005), Trajetória 2005, 9anos*

Alidou, H. 2006. *Use of African languages and literacy: conditions, factors and processes (Benin, Burkina Faso, Cameroon, Tanzania and Zambia)*. Paris, ADEA

Api, D. 1988. *The magic word*. In: *the new internationalist*. Issue 180, February 1988

Balima, P. 2006. *Integrating literacy and non-formal education programs within the educational policies of Burkina Faso*. Paris, ADEA

Basu, K. and Foster, J. 1998. *On Measuring Literacy*. *Economic Journal*, Vol. 108, pp.1733-49.

Bernard, J.-M. 2003. *Éléments d'appréciation de la qualité de l'enseignement primaire en Afrique francophone*. Background paper for the ADEA report *The Challenge of Learning: Improving the Quality of Basic Education in Sub-Saharan Africa*. Paris, Association for the Development of Education in Africa.

Byamugisha, A., and Ssenabulya, F. (2005). *The SACMEQ II Project in Uganda: A Study of the Conditions of Schooling and the Quality of Education*. Harare: SACMEQ.

Carr-Hill, R. (ed.), 2001. *Adult literacy programs in Uganda: an evaluation*. Washington DC, World Bank

CONFITEA V Mid-Term review. *Brazil Country Report, 2003*. Retrieved from UIE website / Confintea V portal

CONFINTEA Mid-term review. 2003. *Uganda Country Report*. Kampala, Ministry of Gender, Labour and Social Development

Diagne, A. 2006. *L'alphabétisation et de l'éducation non formelle dans quelques pays africains: état des lieux, défis et messages clés*. Dakar

Di Pierro y Graciano (2003) *A educação de jovens e adultos no Brasil Informe apresentado à Oficina Regional da UNESCO para América Latina y Caribe, São Paulo, Ação Educativa*.

Easton, P. 2006. *Creating a literate environment: hidden dimensions and implications for policy*. Paris, ADEA

Easton, P. and Fagerberg-Diallo, S. 2001. *Senegal: indigenous language and literature as a non-profit business*. In: *IK Notes 38*, November 2001, Washington DC, World Bank

Fagerberg-Diallo, S., 1999. *Searching for signs of success: enlarging the concept of 'education' to include Senegalese languages*. Dakar, ARED

- Fagerberg-Diallo, S. 2006. Learner Centered Processes and Approaches: The Connection between Non-Formal Education and Creating a Literate Environment. Paris, ADEA
- Fernandez, B. 2005. Literacy in Francophone countries, situations and concepts. Background paper for EFA Global Monitoring Report 2006
- FTI Secretariat (2006) Status Report prepared for the EFA-FTI partnership meeting Cairo, Egypt November 13-14, 2006
- Global Campaign for Education/Action Aid International, 2005. Global benchmarks for adult literacy. Background paper for the 2006 EFA Global Monitoring Report. Literacy for Life.
- Global Campaign for Education 2006. Luces y sombras. Un análisis de los canjes de deuda por educación en el marco de las Cumbres Iberoamericanas.
- Halaoui, N. 2003. The utilization of African languages: policies, legislation and realities. Paris, ADEA
- Henriques, R. and Ireland, T. 2006. Brazilian National Policy of Adult and Youth Education. Paris, ADEA
- Herbert, B., 2006. Functional adult literacy and poverty eradication. www.gla.ac.uk
- IBGE (2003). Censo Demográfico 2000; Educação: Resultados da Amostra. Rio de Janeiro: Instituto Brasileiro de Geografia e Estatística.
- INEP (2003). Mapa do analfabetismo no Brasil. Brasília: Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira / MEC.
- INSD (Institut National de la Statistique et de la Démographie), 2000 Analyse des resultats, du recensement générale de la population et de l'habitation de 1996 Volume I, Ministère de l'Economie et des Finances, Ouagadougou.
- Ladefoged, P., Glick, R. and Criper, C. (eds.) 1971. Language in Uganda. Nairobi, Oxford University Press
- Lallou, B, 1998. Burkina Faso Language Reform is not simple matter. UNESCO Sources N° 104, September, UNESCO. Paris.
- Lauglo, J. 2001. Engaging with adults: the case for increased support to adult basic education in sub-Saharan Africa. Washington DC, World Bank
- Lewandowski, S. 2006. Mobilising local knowledge at school: a requirement for the quality of education? Paper for the international conference 'Education/training: the search for quality'. IRD-IER-NIESAC, HCMC 18-21 April 2006
- LitNet, 2002. Comments of the Education Funding Agency Group (EFAG) on the NALSIP. Kampala, LitNet
- Masagao Ribeiro, V. and Gomes Batista, A., 2005. Commitments and challenges towards a literate Brazil. Background Paper for the EFA Global Monitoring Report 2006.
- MEBA, 2001. Annexe au Plan décennal de développement de l'éducation de base 2001/2010. Ouagadougou, Ministère de l'Enseignement de Base
- MEC/SECAD (Ministry of Education of Brazil. Secretariat of Continuing Education, Literacy and Diversity) (2006) Brazilian National Policy of Adult and Youth Education, paper prepared for ADEA Biennial Meeting (Libreville, Gabon, March 27-31, 2006).
- Michaelowa, K. 2002. Teacher job satisfaction, student achievement, and the cost of primary education in francophone sub-Saharan Africa. Hamburg, Hamburg Institute of International Economics.
- Ministry of Gender, Labour and Social Development, 1995. A process review of functional literacy project in Uganda. Kampala, Ministry of Gender, Labour and Social Development
- Ministry of Gender, Labour and Social Development, 2002. National Adult Literacy Strategic Investment Plan (NALSIP). Kampala, Functional Adult Literacy Secretariat

- Napon, A. and Sanou/Zerbo, S. 2005. L'alphabétisation: les options réelles sur les politiques et les pratiques du Burkina. Commissioned paper for the EFA Global Monitoring Report.
- Nikiema, N. 1994. Les langues nationales et intérêts de classe. In : Les langues nationales dans les systèmes Educatifs de Burkina Faso. Ouagadougou, MESSRS
- Norris, R, 2000. The IPG Handbook on Environmental Funds. A resource book for design and operation of environmental funds.
- NSDS (National Service Delivery Survey). 2004. UBOS Kampala
- Ouane, A. and Glanz. C.
- OECD, 2003. Philanthropic Foundations and Development Cooperation, DAC Journal, Vol. 4, N°3
- Okech, A. 2005. Uganda case study of literacy in education for all. Commissioned paper for the EFA Global Monitoring Report.
- Okech, A. 2006. Continuation and expansion of literacy programs : from literacy to adult basic education and beyond in Uganda. Paris, ADEA
- Okech, A. et al, 1999. Report of evaluation of the Functional Adult Literacy Program in Uganda. Kampala, Ministry of Gender, Labour and Social Development and the World Bank Mission in Uganda.
- Ouane, A and Glanz, C. 2005. Mother Tongue Literacy in Sub-Saharan Africa. Commissioned Paper for the EFA Global Monitoring Report
- Oxenham, J., 2002. Review of World Bank Supported Projects in Adult Basic Education and Literacy, 1977-2002 - Comparison of Costs - 1977 through 2002
- Oxenham, J., 2004. The quality of programs and policies regarding literacy and skills development. Background paper for EFA Global Monitoring Report.
- Robinson-Pant, A. 2003. Overview of learning programs for literacy and more general life/vocational skills for women. Background paper for EFA Global Monitoring Report 2003/4
- Ross, K. et al, 2004. Data archive for the SACMEQ I and SACMEQ II projects. Paris, Institute for Educational Planning
- SACMEQ, 2002. Cross-national comparisons. A paper written for the MINEDAF VIII conference in Dar-Es-Salam, 2-6 December 2002
- Street, B. 2004. Understanding and Defining Literacy: Scoping paper for EFA Global Monitoring Report 2006
- Tiendrebeogo-Kaboret, A. and Matabe, C. 2006. The Financing of Literacy and Non-Formal Education by the FONAENF in Burkina Faso. Paris, ADEA
- UBOS (2005a) Statistical Abstract, Uganda Bureau of Statistics, Kamapla
- UBOS (2005b) 2002 Uganda Population and Housing Census, Main Report, Uganda Bureau of Statistics, Kamapla.
- UIS, 2004. The Literacy Assessment and Monitoring Programme (LAMP). Montreal, UNESCO Institute for Statistics
- UNDP, 2005. Human Development Report 2005. International Cooperation at the Crossroads: Aid, trade and security in an unequal world. New York. UNDP
- UNESCO (2002) EFA Global Monitoring Report Edition 2002: Is the World on Track? Paris, UNESCO
- UNESCO (2003) EFA Global Monitoring Report Edition 2003/4: Gender and Education for All, The leap to equality. Paris, UNESCO
- UNESCO (2003b). Education in a multilingual world. UNESCO education position paper. Paris, UNESCO
- UNESCO (2004) EFA Global Monitoring Report Edition 2005: Education for All, The quality imperative. Paris, UNESCO

UNESCO (2005) EFA Global Monitoring Report Edition 2006: Literacy for Life. Paris, UNESCO.

UNESCO (2006) EFA Global Monitoring Report Edition 2007: Strong Foundations. Paris, UNESCO.

UNESCO Nairobi Office, 2006. Uganda Country Status Report on Progress Towards Achievement of the Dakar 2000 EFA Goals. Nairobi, UNESCO Office

Vandemoortele, J. and Roy, R. 2004. Making sense of MDG costing, New York, August 2004, published by the Finnish Ministry of Foreign Affairs.

Van Ravens, J. and Aggio, C. 2007. Literacy Needs Assessment for Brazil, Burkina Faso and Uganda. Background document for this report. UIL-website.

Van Ravens, J, and Aggio, C. 2005. The costs of achieving Dakar goal 4 in developing and 'LIFE' countries. Background paper for EFA 2006 Global Monitoring Report. [http://portal.unesco.org/education/en/file\\_download.php/72f6518aach70ab4eaea166bfb2fe4acVan\\_Ravens.doc](http://portal.unesco.org/education/en/file_download.php/72f6518aach70ab4eaea166bfb2fe4acVan_Ravens.doc)

Wils, A. 2002. On accelerating the global literacy transition. Research and assessment systems for sustainability program. (Discussion paper 2002-18). Cambridge Mass., Belfer Center for Science and International Affairs, Kennedy School of Government, Harvard University