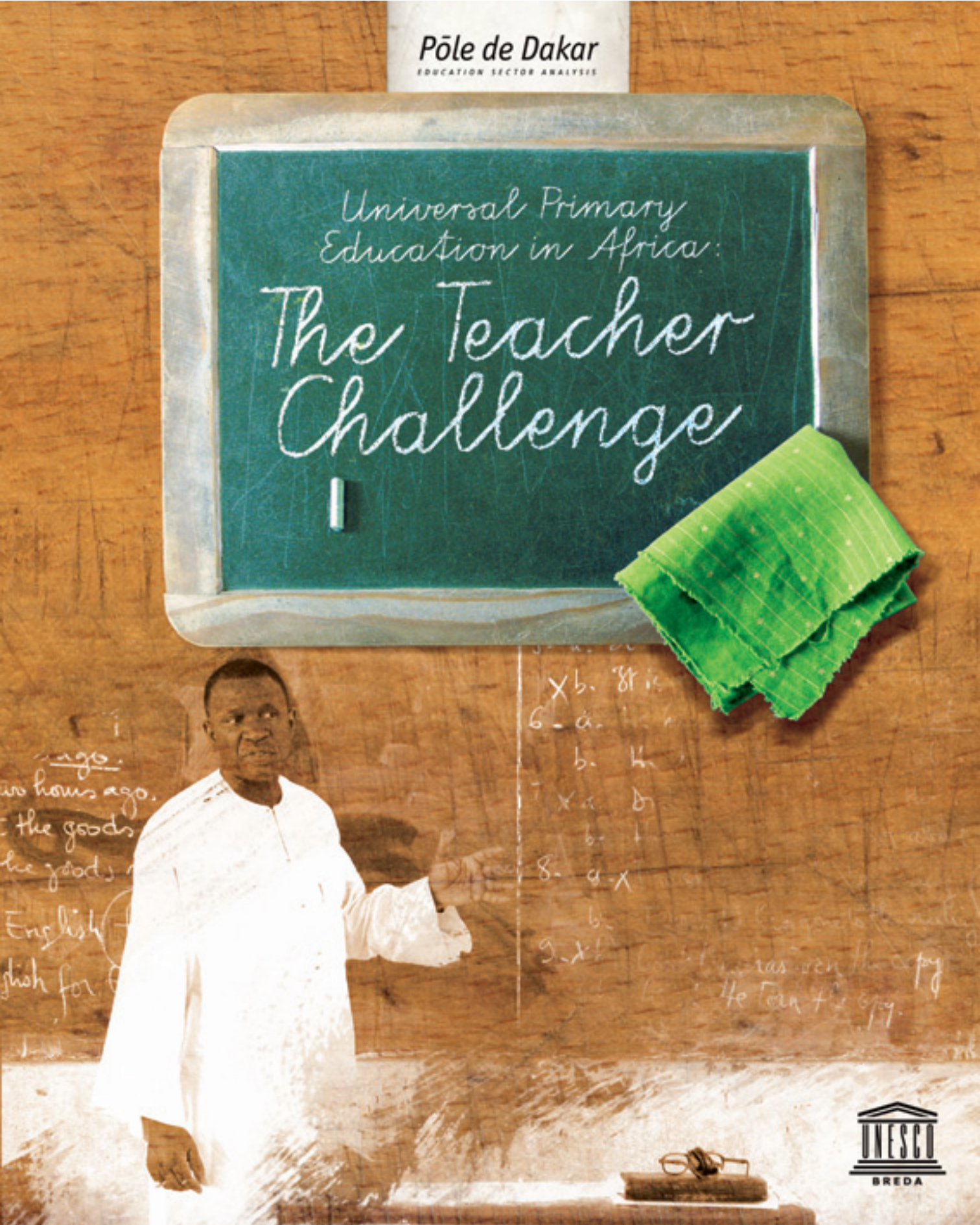
Pôle de Dakar
EDUCATION SECTOR ANALYSIS

Universal Primary Education in Africa: The Teacher Challenge



UNESCO
BREDA

Pôle de Dakar

EDUCATION SECTOR ANALYSIS

Universal Primary Education in Africa: The Teacher Challenge

The authors
This publication has been drawn up by the Pôle de Dakar education sector analysis team within the UNESCO Regional Office for Education in Africa (BREDA).

The editorial team comprised:
Mr Jean-Pierre Jarousse, Coordinator
Mr Jean-Marc Bernard, Advisor in support to countries
Mr Kokou Améléwonou, Education policy analyst
Ms Diane Coury, Education policy analyst
Ms Céline Demagny, Intern
Mr Borel Anicet Foko Tagne, Education policy analyst
Mr Guillaume Husson, Education policy analyst
Ms Blandine Ledoux, Education policy analyst
Ms Julia Mouzon, Education policy analyst
Mr André Francis Ndem, Education policy analyst
Mr Nicolas Reuge, Education policy analyst

Nota Bene
The analysis and policy recommendations presented in this publication are those of the authors and do not necessarily reflect the views of UNESCO.

UNESCO-BREDA publication number
ISBN 978-92-9091-099-2

Photography
All photographs are by © Thierry Bonnet [www.thierrybonnet.com] except:
Front cover, pages 6 and 13: © byReg'
Page 148: © Mario Bels [www.bels-mario.com]

Graphic design and layout
byReg' Mr Régis L'Hostis, Dakar

Printing
La Rochette, Dakar

Translation French › English
Ms Marjorie Leach, Montpellier

Proofreading
Ms Katia Vianou, Dakar

Summary

Chapter 2

P43 Teacher salaries and the expansion of education: a fundamental link

Chapter 5

List of graphs

List of tables

List of tables

List of boxes and maps


Universal Primary Education in Africa:
The Teacher Challenge

The teaching sector relies primarily on the human resources it employs: on the one hand, the quality of the teachers' work significantly determines the quality of the educational services delivered; on the other hand, teachers' salaries by far account for the most important share of expenditure in this sector.

Introduction

These two facts most certainly make teacher matters the central element of current policies for the development of African education systems and the key to their expansion towards universal primary education (UPE) and eventually towards a cycle of basic education to incorporate lower secondary education.

However, there are many points to be clarified in order to establish a debate on teacher matters in Africa that will reflect the importance of the issues involved, over and above the poor knowledge of reality, distorted views, questions of principle and ideologies. The extent of the needs and the weight of financing constraints lead some to focus only on the financial aspect, as though the expansion of the education systems depended on the reduction of salary costs alone, at the risk of neglecting quality; for others, priority is given exclusively to quality, as though it depended on an ideal definition of teacher policy (level of recruitment, salaries, careers, working conditions, etc.), which is partly belied by the results of evaluations on the determining factors of learning and which does not take into account the constraints facing the countries. Neither of these positions is sustainable since each of them ignores what is relevant in the other. A teacher policy is absolutely essential for quality education and must be realistically defined with regard to enrolment needs and financing constraints.

The purpose of this study is to provide useful clarifications that will hopefully contribute to reconciling these artificially conflicting points of views and so facilitate the necessary dialogue for setting up teacher policies that address the continent's educational challenges.

The fact that the different elements of the debate are scattered at the present time, enables the most extreme points of view to rally only those who go along with their arguments. It is therefore important to assemble them and put them directly into perspective in a single document. Simplistic solutions cannot hold out against the simultaneous reminder of the staggering extent of the needs and the reality of the constraints, but also of the results of research. These highlight the need for all of the African countries to make progress in the area of learning quality while showing the limits of traditional solutions in terms of recruitment and initial training. They call for the exploration of new avenues.

The fact that the different elements of the debate are not always precise, fuels the lack of understanding of actual situations and of orders of magnitude. It is therefore appropriate to contribute to better defining them. How extensive are the needs in personnel connected to UPE? Can we seriously talk about teacher salaries *per se* without referring to the conditions offered to individuals with comparable academic levels in other civil service positions and more so in the private sector as required by the ILO/UNESCO 1966 recommendation[1]? What do the different categories of "new" contract, temporary and community teachers, who already make up the majority of the teaching force in some countries, actually cover? In some cases, it consists in outsourcing an activity formerly carried out exclusively by civil servants, while in other cases the boundary with the original status is much less distinct.

1 Cf. http://unesdoc.unesco.org/images/0012/001260/126086e.pdf

The different elements of the debate are sometimes ideological: this study does not claim to totally do away with this aspect but does aim at focusing as far as possible on the factual elements. For example, it is no doubt important to recognise at the same time that while the private sector does not spontaneously fulfil collective goals, a public service can be provided by institutions and/or personnel who do not necessarily belong to the civil service. In the same way, hasty denunciation of the Education For All Fast Track Initiative (EFA-FTI) indicative framework (that may be interpreted as indicative, incentive, imperative...) on a specific point (teacher salaries, for example) leads to denying a sound analytical substrate; the latter is based on the notion of trade-offs under financing constraints, whereby the recommended level of salary reflects quantitative (enrolling more children with a view to reaching UPE) and qualitative (limiting class size, ensuring availability of funds for educational materials, in-service training, etc.) goals.

The question of trade-offs is precisely a key methodological element of the debate since it is at the centre of the antagonisms on the way teacher matters are handled. For some, implicitly, quality teaching is obtained by an ideal combination of factors and so by the concomitance of high levels of recruitment and of professional training for teachers, small class size, abundant allocation of educational materials, and effective pedagogical management and supervision. For others, the need to systematically take into account the constraints means thinking of allocations of the different factors in terms of substitution. In the interests of an effective educational policy, it is thus important to look for the combination of factors that guarantees the best quantitative and qualitative results, **for any conceivable level of resources.**

The analysis of the evaluation of devices and practices, although not enough, is thus a prerequisite for a dialogue on the question of teacher policies. The misunderstanding clearly stems from a different perception and usage of the results produced by these evaluations. These results confirm the remarks of actors in the field on the impact of each of the components of a teacher policy. They generally show that the quality of learning increases along with the level of recruitment of teachers and with the allocation of educational materials, particularly textbooks, and highlight the decrease of this learning with the rise in class size. Researchers concur from these results that the impact of these factors, according to their level of allocation, differs both in terms of intensity and of costs. By incorporating these results in constrained trade-offs that take into account the quantitative developments generated by the Dakar goals, researchers therefore arrive at different recommendations in terms of educational policy. Comparing the impact and costs of the different factors suggests, for example, that there is more to be gained at present, in both quantity and quality, in most African education systems, from giving priority to textbook allocations, reducing class size and improving pedagogical management and supervision than from raising the academic level of recruitment of teachers.

While it can be hoped that a sound technical analysis will clarify the debate, it cannot in itself constitute a policy. On the question of trade-offs, it is of course important to take into account the strong social dimension relayed by the teachers' unions in their often difficult dialogue with the ministries. While the main subject of this study is obviously not the analysis of the relations between trade union organisations and ministries of education, it will nevertheless attempt to report on the positions of both in order to shed light on recent developments and also to assess the realism of future reforms.

The study is divided into five chapters, each tackling a particular aspect of teacher matters in Africa, from the presentation of the context and constraints specific to African countries, through to the subjects of salary, status, quality and school and teacher management. While it is above all a matter of gathering together existing information in order to put it into perspective, the study does provide updates on several aspects for a direct contribution to the debate. Available information is however scarce and non-exhaustive. Much of it is not the subject of systematic collection and originates from sector diagnosis activities conducted in the countries[2].

The first Chapter is devoted to teacher needs in response to the emblematic goal of primary education for all set at the Dakar Forum in the year 2000. While teacher matters are the central topic of debates on education worldwide, they obviously take on a special dimension in Africa, and particularly in sub-Saharan Africa, faced with the challenge of UPE. The lag accumulated in terms of primary school education and the very heavy weight of demographic growth make teacher matters first and foremost a quantitative issue.

The analysis of teacher needs presented in this study uses school data and national demographic data from 41 African countries. The goal is for all children in each country to complete primary school[3]. The horizon defined for this goal varies depending upon each country's current situation in terms of primary completion. Thus, for those countries closest to the goal (6), achieving UPE is projected for 2010, while for those countries furthest behind, some of which have already pushed back the Dakar goal in their programme activities, achieving UPE is set at 2020 (20 countries). The horizon of 2015 is maintained for the other 15 countries.

Based on a variety of common present day assumptions about school organisation (pupil-teacher ratio, repetition, etc.) and on an attrition rate adapted to each country, the number of new teachers to be recruited in order to attain UPE in the 41 countries as a whole is estimated at around 2.4 million; this is close to the current total number of teachers, which is in the region of 2.9 million. At first sight, this objective may seem sustainable insofar as it corresponds to maintaining the same rate of recruitment as that observed in the recent period (2000-2005) for the vast majority of countries. However, the challenge is still very high in view of the singularity of this period, which corresponded to the introduction of aggressive policies for lowering teacher salary costs; these policies enabled an unprecedented increase in recruitments within the framework of an increase in national and international financing.

2 Diagnostic studies mainly carried out with the support of the World Bank and/or the Pôle de Dakar education sector analysis, UNESCO-BREDA.

3 In technical terms, this means reaching a primary school completion rate of 100%.

The second Chapter deals with teacher salaries. In order to understand the origin and the singularity of recent salary policies, this chapter goes back over the central role of teacher salary issues in the framework of the educational policies (large share of domestic budgets, one of the elements of a global trade-off where choices are also determined in terms of pupil-teacher ratios, allocation of educational materials, administrative and pedagogical management of teachers, etc.) and strives to trace the joint evolution of teacher salaries and teacher recruitment in Africa.

The evolution of average teacher salaries in Africa in terms of wealth per capita over a relatively long period of time (1975-2005) is marked by a continual decline in French-speaking Africa where civil servant salaries were initially based on those in colonial Metropolitan France, and by a convergence with those in force in English-speaking Africa. The deterioration in the relative situation of teachers reflects the impact of structural adjustment policies on civil servant salaries over a large part of the period but has not however worked in favour of a massive increase in recruitments of new teachers. On the other hand, the decline of the average salaries observed over the most recent period (2000-2005), in the two main language areas, corresponds to the introduction of aggressive policies that have enabled a very significant increase in recruitments. In English-speaking Africa, the decrease in salary cost has been obtained mainly by resorting to less-trained teachers, while in French-speaking Africa it corresponds to the introduction of new status categories defined outside of the civil service. While satisfying the needs in new teachers for achieving UPE corresponds to maintaining the rhythm observed over this very recent period for many countries, the question is obviously raised as to the sustainability of these new salary policies and their consequences in economic, social and pedagogical terms. This chapter therefore intends to establish the current levels of teacher salaries according to the different status categories and looks into their capacity to attract people to the profession with a view to satisfying the needs in new teachers.

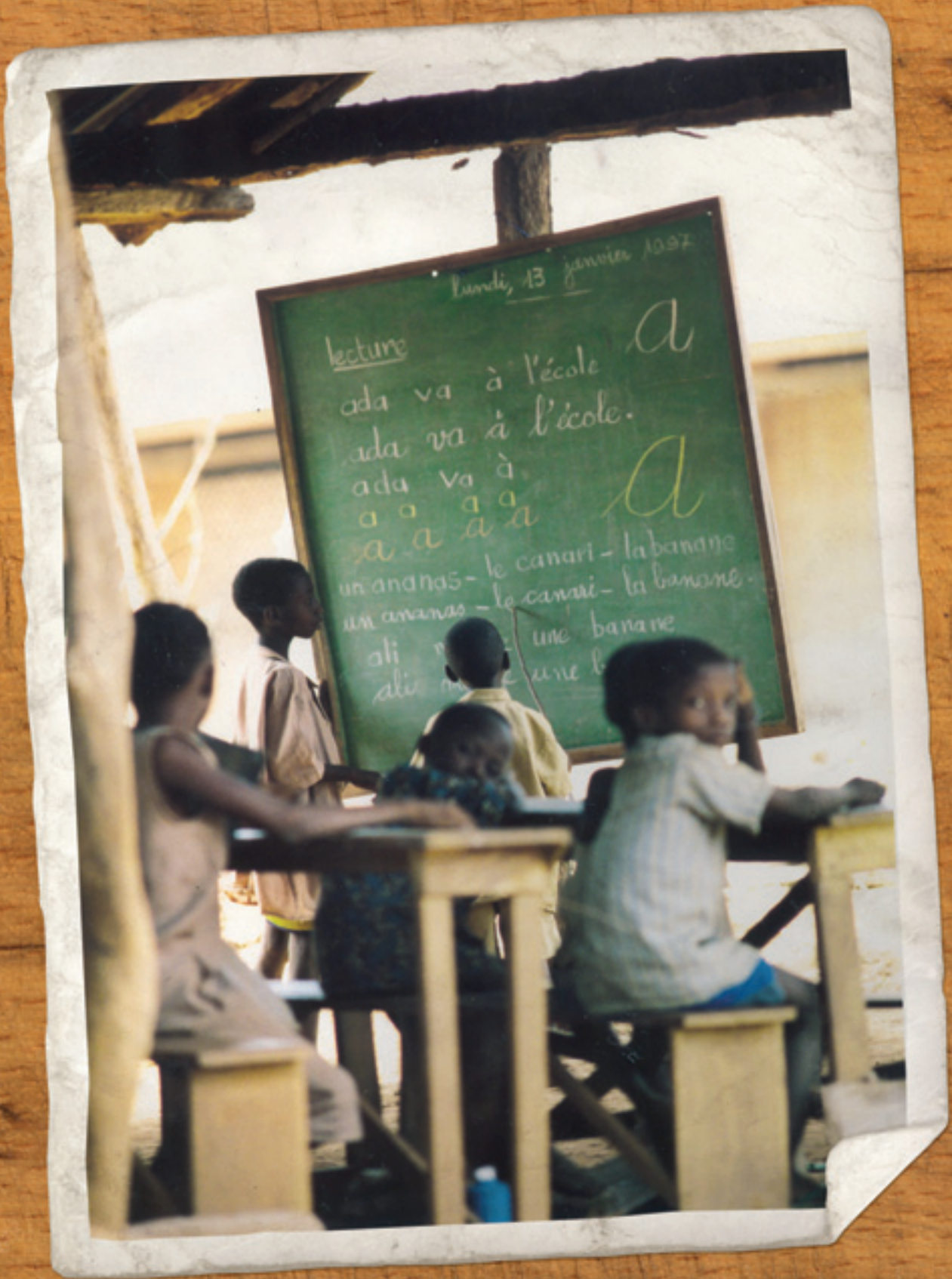
The third Chapter explores the content of these new teacher policies in more detail. Limited to the main lines in terms of teacher policy in Africa, the presentation of the second Chapter above may have given an impression of genuinely homogeneous situations within the two main language areas. In fact, there is a very wide variety of country situations and, in spite of common designations, of "new teacher" categories too. The third Chapter thus goes into more detail about the creation of these new teacher policies, as well as describing more precisely the multiplicity of solutions adopted by the countries. The introduction of community teachers, recruited and paid by the communities, was a sign of the pronounced demand for education from families during the periods of structural adjustment and opened the way for restructuring the teaching profession by questioning the traditional requirements in terms of initial and professional training and by fostering the creation of specific status categories, as covered in this chapter. A detailed exploration of the different situations reveals the heterogeneity of national responses and that of the teaching profession in each country in terms of professional profiles, status, salaries and careers. Although this dual heterogeneity has enabled noteworthy progress in terms of enrolments, genuine teacher policies are called for today.

The fourth Chapter explores the crucial issue of the teacher's role in the learning process. Protest in many countries over the massive recruitment of these new teachers concerns their status and salary conditions of course, but also the consequences on the quality of pupil learning. When acknowledging the teacher's central role in the learning process, the quality of his/her work can be readily associated with a well-defined professional profile (academic level, professional training, status, etc.). In this respect, the recruitment of new teachers who differ from their predecessors in all or part of these aspects raises the legitimate question of the impact of these new policies on pupil learning achievements. The results of research are necessary here in order to clarify the elements of a debate all too often limited to a confrontation of irreconcilable opinions. This chapter attempts to present as simply as possible what is known today of the impact of teachers' professional profiles on pupil learning achievements while highlighting the importance of going beyond this immediate appreciation in order to grasp the true complexity of the teacher's role in this process. Clearly, and contrary to generally accepted ideas, observable teacher characteristics, i.e. those managed by the education systems today, have little effect on pupil learning achievements. This is the case for the academic level at which teachers are recruited, where data do however show that a minimum threshold is to be respected; it is also the case for status and particularly for non-civil servant as opposed to civil servant status categories. These results do at least lead to recognising that these elements do not in themselves define the teachers' commitment to their activity. The way they perceive their position (as a promotion rather than a regression) may explain, for example, why some less qualified teachers obtain better results than others who are more qualified. Recognition of a class-effect independent of the teachers' professional characteristics highlights still further the complexity of the teachers' role in the learning process. This clearly challenges the administrative and pedagogical management of schools and classes while making it a key issue for the improvement of quality.

The fifth and final Chapter is devoted to putting the different aspects of teacher matters into perspective. The teacher policies urgently set up as of the year 2000 have frequently been criticised for their shortcomings in terms of recruitment, training and career prospects. This chapter goes over the different practical aspects of a teacher policy in order to identify possible room for improvement but also to provide a general overview of the situation. The lowering of academic levels for recruitment and/or the shortening of the duration of professional training, and even the absence of training in some cases, are the most frequently criticised points. Some results from Chapter 4 are referred to again here in order to discuss these two aspects, the goal being clearly to ensure adequate professional training for all teachers. The deployment of teachers in schools is another, less tackled, but very worrying, management problem in many African countries. Some countries do however perform satisfactorily in this area, which shows that there are ways of improving teacher allocation to schools. Finally, one of the challenges faced by teacher policies in the coming years is that of maintaining competent and motivated teachers in the education systems. Available data show that the problem

of motivation should not be underestimated. Local dynamics at school level can prove important for managing this problem, which implies giving thought to the management of teams of teachers. It also requires the definition of coherent policies in terms of career prospects to enable each teacher, whatever his/her original status, to have a clear vision of the career prospects open to him/her.

The different chapters in this study provide a glimpse of just how acute teacher issues are in Africa today due to the very strong constraints weighing on the educational goal the countries have set themselves in order to break with the situation of underdevelopment. In most African countries, the transition to mass education is in many cases incompatible with the former teacher recruitment and salary model. Contrary to what has been observed in countries elsewhere where initial conditions were more favourable (lower salary levels, priority given successively to the different levels of education in phase with economic needs, etc.), breaking with the inherited model is an essential condition for achieving the ambitious goals set for the education systems. This inevitably distressing and confrontational break must be explained in order for it to be socially acceptable, and above all it must be part of a coherent overall policy. This coherence concerns primarily the teacher policy itself, which cannot be limited to recruiting less costly alternatives than the permanent teachers already employed. It also concerns incorporating the teacher policy in the more global trade-off necessary for achieving quality mass education.


Lundi, 13 janvier 1997
lecture
a
ada va à l'école
ada va à l'école.
ada va à
a a a a
a a a a
un ananas - le canari - la banane
une ananas - le canari - la banane.
une banane

When implementing the strategies defined for reaching universal primary education (UPE) for all children in Africa, the initial challenge faced by many countries will be to benefit from an adequate number of qualified teachers. Different estimations of teacher needs are already available but it seems appropriate to update them in line with enrolment dynamics observed over recent years.

Chapter 1

Educational demand and teacher needs

There are two sections to Chapter 1: the first one looks into the factors behind teacher demand and the situation of the various countries with regard to these factors; the second section sets out new estimations of teacher needs based on the most recent available data and on new assumptions. These estimations are conducted separately on the basis of one model per country, in order to allow for national specificities and differences between countries.

Chapter 1

Educational demand and teacher needs

1. Factors at the source of teacher demand

Teacher demand arises from multiple factors. Some of these, such as demographic growth or the enrolment situation (recent trends and status of schooling coverage) contribute directly to measuring the UPE goal, which naturally depends on the number of children to be enrolled and the proportion of those already attending school. Other factors are to do with how the education system is organized (pupil flow management and pupil-teacher ratios, for example). This section looks at these different factors and how they combine to determine teacher needs.

1.1. Trends and status of schooling coverage

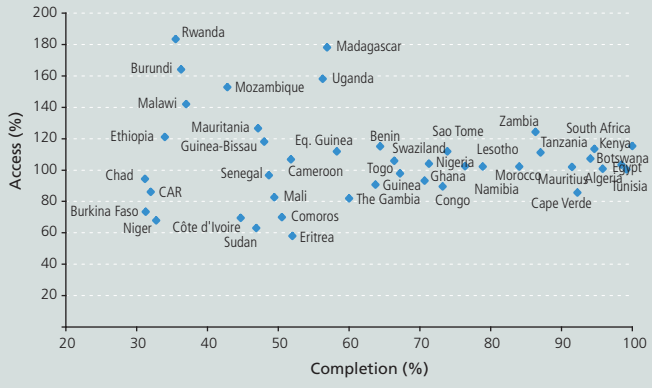
The level of development of education systems in terms of coverage is definitely the basic reference for defining teacher needs. These needs are higher as countries are further from the UPE goal of leading all children through to primary completion. Therefore, it is essential to look first at the situation of quantitative coverage in primary education. Graph 1.1 illustrates the situation in terms of primary school access and completion for the 46 countries where data are available. It can clearly be observed that current enrolment levels vary immensely from one country to another in these two respects.

In 2005-2006, universal access to school was becoming a reality in most countries since the gross intake rate (GIR), measuring the proportion of children newly registered in the first year of primary education, was over, or equal to, 90% for 35 countries[4]. So, even if access is not necessarily universal in these countries, it does concern a very large majority of children. However, seven countries are still facing a serious access problem, that is Burkina Faso, Comoros, Côte d'Ivoire, Niger, Sudan, Central African Republic (CAR) and Eritrea. In these countries, over one in five children do not enter school at the present time (gross intake rate of under 80%).

UPE is not only defined by universal access to school but also supposes that all children complete a full cycle of primary education. We then refer to the primary completion rate

4 The GIR is calculated by dividing the number of non-repeaters in the first grade of primary education by the total population of theoretical primary school entrance age. In practice, the number of non-repeaters includes children who are not of the theoretical age (younger or older), which is why the GIR may be over 100%.

Graph 1.1: Primary school access and completion in Africa, 2006 (or closest year)



Source: Calculation based on UNESCO Institute for Statistics (UIS) data, national data and United Nations population data

(PCR), which estimates the proportion of children reaching the final grade of primary education[5]. From this angle, the situation is more worrying. Indeed, in 2006, the average completion level was 66% meaning that almost 4 in 10 children did not complete primary school, either because they had never attended school or because they had left school before the end of the cycle. On average, quantitative expansion with a view to achieving UPE in Africa will therefore imply strong constraints as far as the development of educational supply is concerned, and especially in terms of staff to be recruited. The constraints will be even stronger for some 16 countries where less than one in two children completed primary education, and particularly for half of these countries where that proportion was under 40%, that is Chad (31.2%), Burkina Faso (31.3%), CAR (32.4%), Niger (32.8%), Ethiopia (34%), Rwanda (35.5%), Burundi (36.3%) and Malawi (37%)[6].

Regarding the current situation in terms of completion, the models used aim at determining the needs for teachers that would result from all primary school-age children being admitted to school by the set date and completing the full cycle of primary education. The needs can be determined by referring to a potential demand. The latter can be partially addressed by an expansion of supply[7] but may differ significantly from the actual demand. In all countries where completion rates are low, aside from the recruitment of the necessary teachers, achieving UPE will therefore depend on the success of a suitable policy designed to raise the obstacles that are specifically related to the families' demand for education.

Potential demand is determined with reference to the estimated school-age population and is directly linked to demographics. As we are to see in the following section, this is yet another factor of differentiation between countries in determining teacher needs.

1.2. Demographic trends: a significant influence on demand yet extremely variable from one country to another

According to international population data[8], the primary school-age population[9] in Africa should increase by 1.7% per annum on average, whilst its proportion in the total population should slightly decrease by the 2020 horizon: from 15.9%[10] in 2006, this proportion would fall to 15.4% by 2015 and to 15% by 2020. In spite of this trend, there are considerable variations: table A1.1 in appendix illustrates the diversity of situations as far as the anticipated growth in school-age population for each country is concerned.

Thirteen countries are under the 1% line, and rates are even negative in some Southern African (Botswana, Lesotho, Mauritius, Namibia, Swaziland, Zimbabwe) or North African (Morocco, Tunisia) countries. While somewhat moderate growth is forecast for another thirteen countries (between 1 and 2% average annual growth), **half of the countries in Africa will have an average annual growth of over 2%.**

5 The PCR is calculated by dividing the number of non-repeaters in the last grade of the cycle by the total population of theoretical final-grade age.

6 As primary education lasts 8 years in Ethiopia and Malawi, this is the completion rate in grade 8, whereas for the other countries with low completion rates, primary education lasts 6 years.

7 Expanding supply simply by ensuring that schools are available locally and limiting the number of incomplete schools, can already contribute to making access easier and reduce dropping out during the cycle.

8 United Nations Population Division, 2006 revision.

9 Taking into account primary school entrance age and the duration of the cycle for each country.

10 Simple mean calculated for the African countries as a whole.

A threshold of 3% is even projected for nine countries, that is Burundi (3.3%), Democratic Republic of the Congo (DRC, 3.6%), Eritrea (3.8%), Guinea-Bissau (3.4%), Kenya (3.2%), Liberia (4.3%), Niger (3.2%), Somalia (3.1%) and Uganda (3.1%).

Thus, the implications of the demographic factor, and more precisely of the growth of the school-age population, are far from similar in the different African countries. While for some countries, demographic growth is now under control, for others it is an additional challenge in reaching the goal of UPE.

1.3. Schooling coverage and demographic growth: different situations from country to country

At this stage, it is therefore of interest to look at each country's situation in terms of the UPE goal alongside the parameters of demographic growth. Table 1.1 provides a classification of the different countries taking into account the pressure resulting from schooling coverage as well as that resulting from the growth of the school-age population.

With the exception of Kenya, countries with high completion levels (>90%) tend to be on moderate demographic trends (under 2%). The constraints are therefore lower for these countries as far as the recruitment of new teachers is concerned. On the other hand, for the group of countries with low completion levels (<50%), the demographic constraint has different implications:

- The school-age population in countries such as Côte d'Ivoire, CAR, Ethiopia, Mauritania and Sudan shows moderate growth. The demand for teachers in these countries will therefore be related above all to the necessary expansion of the system.

- However, countries such as Niger, Eritrea, Burundi, Guinea-Bissau, Uganda and to a lesser extent Burkina Faso, Chad, Mali, Mozambique, Rwanda, Senegal and Malawi will be subject to a double constraint in terms of the recruitment of new teachers, i.e. i) make up for the significant lag on the way to the UPE goal and ii) address the steady growth of their school-age population.

Table 1.1 : Country situations with regard to growth in school-age population and primary school completion

% growth in school-age population for the period 2005-2015	Primary completion rate in 2005-2006					Number of countries
	< 50%	50-70%	70-90%	> 90%	NA	
< 0		Swaziland	Lesotho, Morocco, Namibia	Botswana, Mauritius, Tunisia	Zimbabwe	**8**
0 - 1%	Côte d'Ivoire, Djibouti			Algeria, South Africa	Gabon	**5**
1 - 2%	CAR, Ethiopia, Mauritania, Sudan	Cameroon, Comoros, Madagascar	Ghana, Nigeria, Sao Tome	Cape Verde, Egypt		**12**
2 - 3%	Burkina Faso, Chad, Mali, Mozambique, Rwanda, Senegal, Malawi	Benin, Equatorial Guinea, The Gambia, Guinea, Togo	Congo, Sierra Leone, Tanzania		Angola, Libya	**17**
> 3%	Burundi, Eritrea, Niger	Guinea-Bissau, Uganda		Kenya	DRC, Somalia	**8**
Number of countries	**16**	**11**	**9**	**8**	**6**	**50**

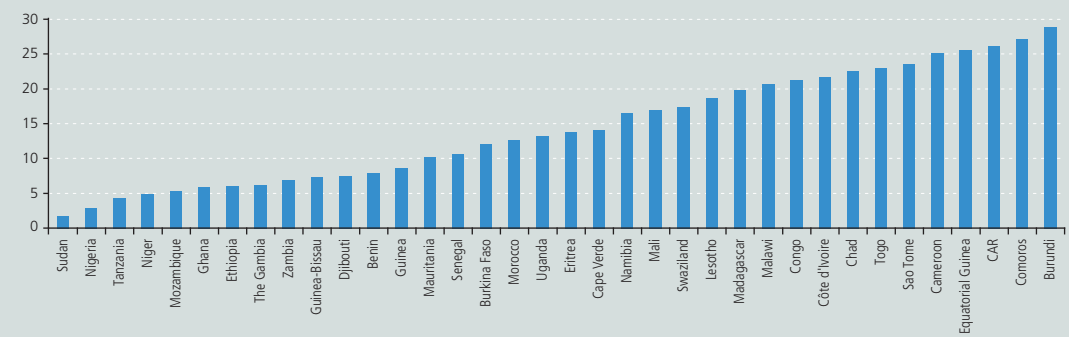
Source: Calculation based on UIS data, national data and United Nations population data

1.4. Impact of repetition policies

Government policies on repetition certainly have repercussions on the need for teachers. Basically, a high rate of repetition increases the number of pupils to be enrolled and so the number of teachers to be recruited. This practice has given rise to much criticism (low individual coherence of decisions, questionable pedagogic effectiveness, negative impact on keeping children from the most disadvantaged families in school, etc.) justifying direct action to limit its use. If sufficiently extensive, policies to reduce repetition can provide an opportunity to reduce the constraints weighing on the need for new teachers.

Graph 1.2 below reflects the differences between countries in terms of repetition in primary school. Values vary significantly in Africa, ranging from 1.7% (Sudan) to almost 29% (Burundi). While it seems hardly probable to improve efficiency in countries with a low rate of repetition, the objective of lowering the threshold to 10%[11] for countries with high repetition rates should undoubtedly provide some leeway for teacher utilisation.

Graph 1.2: Average repetition (%) in primary education, 2006 (or closest year)



Source: UIS data

The results of the simulation (cf. table 1.2) provide an estimation of expected savings in teacher needs according to different scenarios as to the proportion of repeaters in the system. Even though the four countries concerned are rather emblematic (one quarter of the pupils in their primary education systems are repeaters), this simulation demonstrates the substantial economies to be made by these countries on teacher recruitment through the adoption of strategies aimed at reducing the frequency of repetition.

11 As recommended by the EFA-FTI indicative framework.

In comparison to the status quo scenario (maintaining the current rate of repetition through to 2020), CAR and Burundi for example will need to recruit 17% and 22% less teachers respectively in order to achieve UPE if they apply a policy aimed at reducing the percentage of repetition to 10% by 2020.

Table 1.2: Estimation of expected savings in teacher needs according to different scenarios on repetition for the UPE horizon of 2020

		Status quo	Scenario 1	Scenario 2	Scenario 3
Burundi	% repetition	29	20	15	10
	Teacher stock	71 939	63 994	60 230	56 315
	Savings compared to status quo scenario	-	-11%	-16%	-22%
Cameroon	% repetition	25	20	15	10
	Teacher stock	85 499	80 038	75 239	70 433
	Savings compared to status quo scenario	-	-6%	-12%	-18%
CAR	% repetition	26	20	15	10
	Teacher stock	19 166	17 657	16 618	15 851
	Savings compared to status quo scenario	-	-8%	-13%	-17%
Comoros	% repetition	27	20	15	10
	Teacher stock	5 313	4 840	4 556	4 259
	Savings compared to status quo scenario	-	-9%	-14%	-20%

Source: Calculation based on UIS data

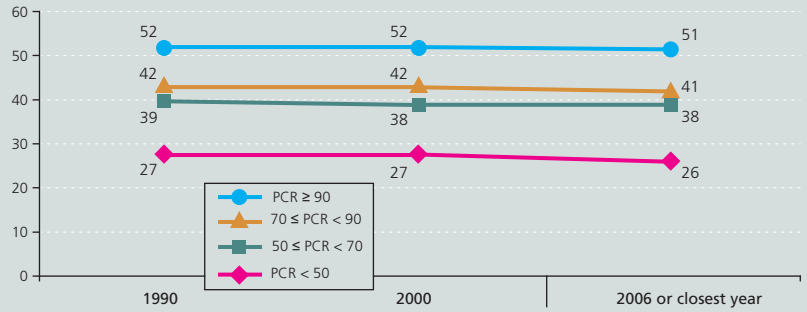
1.5. Pupil-teacher ratios

The average number of pupils per teacher (pupil-teacher ratio) is an essential factor to be taken into account when defining the need for teachers. All things being equal, when this number rises, then fewer teachers are needed; however, with high values, there is a risk of compromising the quality of learning. Based on the values observed in low-income countries that are closest to UPE, the Education For All Fast Track Initiative (EFA-FTI) framework recommends a reference value of 40 pupils per teacher in primary education.

In reality, the value of this statistic is seen to vary according to the level of primary completion and is more favourable in countries close to UPE than in those still far from this goal. In countries where 9 in 10 children on average completed primary education in 2006, the pupil-teacher ratio is 26. It reaches twice that number in countries where less than one in two children completed primary school. For those countries furthest from UPE, the pupil-teacher ratio is far higher than the reference value of 40 indicated earlier, which increases the already very considerable need for teachers.

Moreover, the fact that the pupil-teacher ratio has shown very little sign of improvement over the past 15 years in Africa is to be highlighted. For all groups of countries, irrespective of results in terms of primary completion, the pupil-teacher ratio remained stable on average between 1990 and 2000. It showed signs of a slight decline starting 2000 and is on average currently one point below its early 1990's value (cf. graph 1.3).

Graph 1.3: Evolution in pupil-teacher ratio according to the level of primary school completion, 2006 (or closest year)



Source: Authors' calculation based on UIS data

With the exception of a few countries where progress in enrolments since 2000 has coincided with a deterioration in pupil-teacher ratios (Mozambique, Tanzania, Rwanda, Zambia, Kenya), this result shows that, in most countries, teachers have been recruited[12] on average at the same rate as, or even faster than, the increase in enrolments. This has enabled a slight improvement in the pupil-teacher ratio in countries where it was already favourable as well as in those where it was less so.

12 Without going into issues such as levels of qualifications and newly recruited teacher status—to be handled in Chapter 3.

1.6. Needs related to the dynamics of the teaching force: attrition

When determining the needs for teachers, it is also important to consider the foreseeable flow of teachers leaving the system: every year, adequate numbers of teachers have to be recruited not only for new teaching posts, but also for the replacement of teachers who have given up teaching, either due to retirement, sickness, death, nomination to non-teaching administrative posts, or resignation from teaching.

It is very difficult to precisely measure this phenomenon, traditionally referred to as attrition, in countries where even teacher counts can be unreliable, as demonstrated by the attrition estimations for a single country that vary from source to source. For example, a preparatory study for the Regional Workshop on Teacher Matters "The Challenges of Ensuring Quality Teaching in Every Classroom in Africa" held in 2007 estimated, in a pessimistic scenario, that the attrition rate in Zambia had registered at 9% in 2005, whereas an Education International study reported an attrition rate of 5% for the same country in 2006. It therefore seems difficult to have precise attrition rates for the teaching profession for each country. Nevertheless, comparing several sources (cf. table 1.3) would seem to indicate that attrition rates are well under 5% in countries with a low prevalence of HIV/AIDS and rarely exceed 6%.

Table 1.3: Estimated attrition for several countries according to different sources

Country	Estimated attrition	Date	Source
Eritrea	2%	2002-2005	Workshop
Kenya	3%	2006-2007	Education International
South Africa	6%	2002-2003	Education Labour Relations Council
Gambia, The	3%	2004	Workshop
Lesotho	4%	2006-2007	Education International
	3%	2004	Workshop
Liberia	2-4%	2007	Workshop
Malawi	6-8%	2002-2012	Country Status Report
	5%	2006	Workshop
Uganda	5%	2006-2007	Education International
	4-6%	2002-2006	Workshop
Zambia	5%	2006-2007	Education International
	9%	2005	Workshop
Zanzibar	3%	2006	Workshop

1.7. Contribution of the private sector to the development of primary education

Private education can contribute, alongside public education, to reaching the EFA goals, either spontaneously, in response to family demands, or in the framework of a financial partnership with the government, the latter taking a share of school operating costs. Both public and private education must therefore be taken into account when estimating the teachers needed to achieve UPE on the basis of changes in the school-age population. The question of the precise contribution of private education to the development of primary education and, therefore, that of the distribution of the additional teachers to be recruited across the two sectors, have naturally to be addressed for each country.

The table below provides a clear idea of the variety of country situations in terms of the contribution of private education in the most recent period. It also demonstrates that the share of private education in primary enrolments is already much higher on average in countries that are the furthest from UPE.

Table 1.4: Percentage of enrolments in private education according to primary completion rates

	Percentage of private education
PCR ≥ 90	4%
70 ≤ PCR < 90	6%
PCR < 70	13%

Source: Authors' calculation based on UIS data

2. Projections and estimations of teacher needs

2.1. Model and assumptions

As the projections for teacher needs are based to a large extent on demographic constraints[13] (more or less sharp growth in the number of school-age children), on enrolment levels (more or less distant UPE goal) and on parameters to do with how the education systems operate, it is essential to update existing estimations in line with newly available data. The parameters pertaining to the functioning of the education system that are taken into account for estimating the needs in the framework of this study are repetition, pupil-teacher ratio, attrition of the teaching force and the share of enrolments in private education (in order to distinguish between the need for teachers in the public and private sectors).

Many different models have been devised since 1990; the UNESCO Institute for Statistics (UIS) publication *Teachers and educational quality: Monitoring global needs for 2015* provides six models in a clear and detailed manner (cf. table A1.2 in appendix). The model given here takes its inspiration from those models and attempts to go further: its originality lies mainly in two points that strive to make the projections more realistic[14].

First of all, the target years have been adapted to the individual countries according to the current status of their education systems: while the Dakar goal is to achieve UPE by 2015, it is obvious that some African countries will reach this goal sooner and that others are still too far for it to be realistic for the 2015 horizon. In this respect, some countries have postponed the date of the UPE goal to 2020 in their sector plans due to physical and financial sustainability issues. With this differentiation, the date for achieving the goal is thus set at 2010, 2015 and 2020 and comparable countries are grouped together (cf. table A1.3 in appendix for the list of countries according to the year selected for achieving UPE) and studied slightly differently: the question is no longer how many teachers will be needed by 2015 but rather how many teachers will be needed to reach UPE.

Secondly, attrition is handled per country, whereas this aspect was only covered in the 2004 Pôle de Dakar publication (Améléwonou *et al.*, 2004) in case studies for Benin, Cameroon and Guinea-Bissau. The recent UIS estimation (2006) already took the attrition phenomenon into account, but applied the same rate for all countries. The model presented here takes into account a rate of teacher attrition that varies depending upon the country's characteristics and especially the prevalence of HIV/AIDS, in the absence of data on teachers actually leaving the system or data on other high-morbidity or high-mortality diseases such as malaria.

13 United Nations Population Division estimation, 2006 revision.

14 The model and assumptions made are explained in box 1.1.

The impact of the AIDS epidemic on the teaching profession is the subject of debate but data is too patchy on this aspect to come to a definite conclusion (refer in particular to UNESCO, 2006); however, it seems that, on average, teachers are affected in similar proportions to the rest of the population in a given country. So the idea here is to consider the effects of the epidemic on estimated teacher attrition. Moreover, the phenomenon of attrition in general is particularly difficult to measure, as suggested by the very different results sometimes observed for a given country (cf. table 1.3). Estimations made for around ten countries within the framework of a workshop on teaching matters held in 2007 (Regional Workshop on Teacher Matters, 2007) are distinctly lower than the rate of attrition applied by UIS. This is why, in this study, the minimum rate of attrition has been set at 3% (to take into account teachers leaving for retirement) and increases with the incidence of HIV/AIDS in the country (cf. box 1.1). In this model, attrition reaches a maximum of 6% for countries where the incidence of HIV is over 15%.

2.2. Results

The estimations of (public and private) teacher needs presented here were made on 41 African countries (data were not available for the other 11 African countries, some of which are high-population countries, such as Angola and DRC)[15]. 2006 is the base year for most of these countries[16].

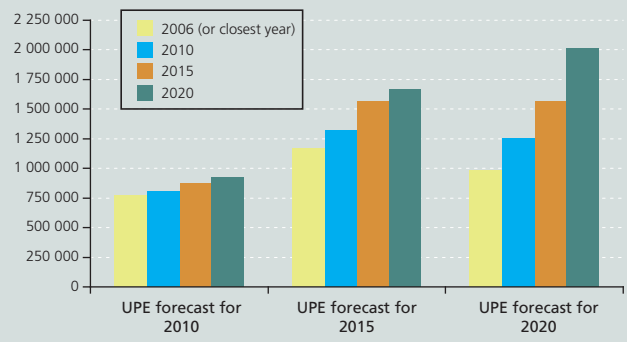
15 Estimations were not made for South Africa where primary completion borders on 100%.

16 This ranges from 2004 to 2007.

17 See appendix 1.4 for details by country.

2.2.1. Projections: overall and by group of countries

Graph 1.4: Numbers of (public and private) teachers at different points in time, according to the group of countries



Source: Authors' calculation based on UIS data

The total number of teachers would increase from around 2.9 million in 2006 to a little over 4.6 million in 2020 for these 41 countries. This corresponds to an increase of 58% in 14 years or an average annual growth of 3.3%[17].

However, situations are very different from country to country and the average annual growth in teachers varies from -0.4% to 9.6% between now and 2020. Graph 1.4 presents the total number of teachers at different dates and according to the three previously identified groups of countries (UPE horizon set at 2020, 2015 and 2010).

Box 1.1: Assumptions made for the model

The simulation model used to estimate teacher needs is partly based on the current situation of the different countries and, as such, brings in time spans that vary according to the situation observed.

• General targets

We suppose here that UPE is characterized both by a gross intake rate of 100% and a completion rate of 100%. The temporal horizon set to reach these goals depends on the level observed for the base year (between 2004 and 2007).

The gross intake rate (GIR) is 100% in:
- 2013 if it is currently under 75%
- 2009 if it is currently between 75% and 90%
- 2008 if it is currently between 90% and 110%
- 2013 if it is currently over 110%

The latter condition is valid for countries with a particularly high GIR due to the multi-cohort phenomenon. This can be seen in post-conflict countries for example where children massively return to school at the end of the conflict, or in countries that introduce measures such as free schooling or again in countries where pupils who drop out in the first year return to the system some years later.

The primary completion rate is 100% in:
- 2020 if it is currently under 60%
- 2015 if it is currently between 60% and 90%
- 2010 if it is currently over 90%

• Additional assumptions

Concerning repetition, the current value is used if this is under 10%, and otherwise a value of 10%. The target year for reaching 10% of repeaters is set at 2015 for most countries and at 2020 for those where the share of repeaters is currently over 20%; countries in this situation are those where the UPE goal is also set for 2020.

For the pupil-teacher ratio, the current value is used if this is below 40, 40 is used if the current value is between 40 and 60 and 50 is used if the current value is over 60. The target year for these values is the same as the UPE target year. It is to be noted that these assumptions are intended to be realistic: while the EFA-FTI indicative framework recommends a pupil-teacher ratio of 40 pupils per teacher, this ratio will not achievable for some countries, even by 2020.

For the percentage of private education, the current value is used if over 10%, 10% if the current value is between 5 and 10%, 5% if the current value is below 5% and 0 if the current value is nil.

Concerning the rate of attrition, the minimum is set at 3% and it increases along with the incidence of HIV/AIDS in the country. Thus, attrition is estimated at:
- 3% for countries where the incidence of HIV is below 5%
- 3,5% for countries where the incidence of HIV is between 5% and 10%
- 4% for countries where the incidence of HIV is between 10% and 15%
- 6% for countries where the incidence of HIV is over 15%

In all countries where UPE is projected for 2020, the number of teachers needed is more than double the current number, and for countries where UPE is forecast for 2015 the number of teachers has to be multiplied by 1.5. Not surprisingly, the third group of countries, scheduled to reach UPE by 2010, requires only very moderate growth. Thus those countries furthest from UPE are the ones requiring the largest increase in teacher numbers. This fairly intuitive result is confirmed by the calculation of average rates of annual growth, presented in the following table.

Table 1.5: Average annual growth in teacher numbers, by group of countries and sub-periods

		Countries where UPE is projected for:		
		2020	2015	2010
2006-UPE (any date)	all sectors	5.2%	3.4%	0.9%
	public sector only	5.1%	3.2%	-0.5%
2006-2010	all sectors	6.0%	3.3%	0.9%
	public sector only	5.8%	2.5%	-0.5%
2010-2015	all sectors	4.6%	3.4%	
	public sector only	4.5%	3.7%	
2015-2020	all sectors	5.2%		
	public sector only	5.2%		

Source: Authors' calculation based on UIS data

As observed on graph 1.4, the more distant the horizon is, the higher the expected annual growth rates are (i.e. when current primary completion rate is low). As such, not only does the quantitative challenge seem greater for countries furthest from UPE but it will also require sustained efforts over a longer period of time.

The division into three sub-periods reveals the need, for countries furthest from the goal (2020 horizon), to catch up over the first period with a growth in teacher numbers that should reach 6% on average per annum between 2006 and 2010 compared to under 5% for the 2010-2015 period and a little over 5% for the 2015-2020 period. Countries in an intermediary situation (2015 horizon) should undergo steady growth in teachers between 2006 and 2010 (3.3%) and between 2010 and 2015 (3.4%).

Table 1.5 makes the distinction between rates of growth in teacher numbers in all sectors as a whole and those that should be observed in public education only. These rates are very similar in all countries where UPE is scheduled for 2020; these countries already have a more widely developed private sector than other countries and will have to continue developing both sectors on a parallel (proportionally).

The calculation of the needs for new teachers gives another picture of the effort that governments will have to make in order to renew and sufficiently increase their teacher stock with a view to attaining UPE. The calculation of these needs (cf. table 1.6) takes teacher attrition into account here, which means that total annual needs throughout the projection period are much higher than the simple difference in teacher stock between the base year and the UPE achievement year.

Table 1.6: Teacher needs, by group of countries and sub-periods

		Countries where UPE is projected for:		
		2020	2015	2010
Current number of teachers		986 408	1 162 495	771 501
New teachers needed	2008-UPE	**1 535 941**	**712 764**	**108 840**
	2008-2010	285 111	240 488	108 840
	2010-2015	537 611	472 274	
	2015-2020	713 219		

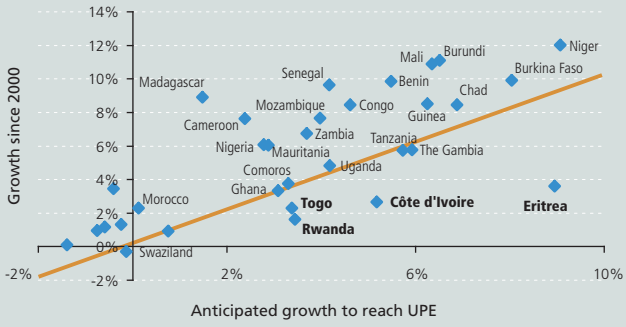
Source: Authors' calculation based on UIS data

Countries scheduled to achieve UPE by 2020 will need to recruit over 1.5 million teachers by then, compared to today's teaching force of under one million. The needs will therefore be very high with the number of teachers to be recruited over the first three years (2008-2010) representing around 30% of the current teacher stock. Rather less efforts will be required from countries scheduled to reach UPE by 2015; even so, the 240 000 teachers to be recruited between 2008 and 2010 represent 20% of the current teacher stock.

18 We have not considered it necessary to go further back in time, insofar as all recent analyses show that the Dakar Forum has given new impetus to enrolments and, consequently, a significant improvement in indicators since 2000.

While recruiting new teachers should not be a problem for countries to achieve UPE by 2010, this is not the case for the other countries which are to face high average annual growth rates: as a result, the question to be raised is whether the anticipated pace can *a priori* be considered sustainable. Interesting information can be gained in this respect from comparing the growth in teacher numbers needed to meet UPE and the growth actually registered since 2000[18].

Graph 1.5: Past growth in teacher numbers compared to anticipated growth



Source: Authors' calculations based on UIS data

The straight line on graph 1.5 materialises the equality of effective and anticipated growth rates. Very few countries (those below the line) will be confronted with a more sustained pace than that registered between 2000 and 2006. Indeed, there are only four countries where teacher numbers should increase more rapidly than in the recent past. This optimistic conclusion is however to be looked at in the light of the considerable changes in educational policy, which have enabled the particularly high growth rates observed in many countries between 2000 and 2006, and of the fact that the UPE goal has been pushed back to 2020 for most countries. The spectacular growth observed over the recent period corresponds to newly introduced teaching policies. However, these policies are being questioned in several countries and there is no guarantee that they will be maintained in the future.

In conclusion to this chapter, it is important to point out, with the help of some examples, that the average situations considered above conceal a wide variety of country situations making up the three groups of countries used as a basis for the analysis.

2.2.2. A wide variety of country situations

On the assumption of UPE in 2020, Madagascar for example, with an average of 40 pupils per teacher, would need to recruit around 46 000 teachers over the next 13 years, which is the equivalent of about 60% of its current teacher stock. The situation is very different in Niger for example where 85 000 new teachers will be needed by 2020, i.e. around three times the current stock, the latter registering at a little over 28 000 primary teachers at the present time. The effort needed is therefore quite different.

The effort to be made by the different countries is obviously very closely connected to the anticipated growth in enrolments. However, for countries strongly affected by HIV/AIDS, projected numbers of new teachers to be recruited are considerably in excess of what would be needed based solely on the increase in enrolments. In Swaziland and Namibia, for example, two countries where the school-age population will decrease between now and 2015, over 6% additional teachers will still need to be recruited each year to maintain the required number of teachers over the period. In the same way, Zambia will need to recruit over 5 500 teachers per year through to 2015 (10% annual growth), i.e. a total of over 50 000 school teachers, whereas the increase in enrolments alone would require only 20 000 new teachers for the same period (the number of teachers rising from 52 000 to 72 000, i.e. a 3% annual increase).

The rate of new recruits will also differ significantly from one country to another. By way of example, the table below presents the situation of each country taking into account the average effort to be accomplished in terms of teacher recruitments to

meet the UPE goal and the pattern of this effort throughout the period (growth, stagnation, decline). Some countries, such as Burkina Faso, Mali, Niger and CAR, which will need to recruit a very high number of teachers annually until 2020, will do so at a progressively decreasing rate. On the other hand, countries such as Guinea-Bissau or Uganda will have to increase their recruitment efforts as they move closer to UPE.

Table 1.7: Situation per country with regard to the average effort to be made on recruitment in order to achieve UPE and pattern of this effort over the period

		Average effort to achieve UPE		
		Moderate (3%-5%)	**Steady (6%-8%)**	**Very high (>9%)**
Pattern of the effort over the period leading to UPE	Decline	*Togo*	**Côte d'Ivoire, Ethiopia, Senegal, Comoros, Sudan,** *Congo, The Gambia*	**Burkina Faso, CAR, Eritrea, Mali, Niger, Chad**
	Constant	**Cameroon, Madagascar,** *Lesotho, Sao Tome, Namibia, Cape Verde, Ghana*	*Benin, Swaziland, Nigeria*	*Zambia, Guinea*
	Growth	**Mauritania, Malawi,** *Morocco*	**Burundi, Guinea-Bissau, Uganda, Rwanda,** *Tanzania*	**Mozambique**

*Note: Countries set to meet UPE in 2020 are indicated in **bold**; those set to meet UPE in 2015 are indicated in* italics.

This chapter has briefly analysed the quantitative challenge related to the expansion of African education systems on the way to UPE. For most countries, under the combined effect of the growth of their school-age population and the necessary increase of their schooling coverage, it is a case of providing schooling for more and more children and so of recruiting the necessary number of teachers. This issue has only been examined from a physical stand here. Over and above the basic elements just mentioned (population and status of schooling coverage), determining the number of teachers to be recruited depends on national choices in terms of pupil-teacher ratios and flow management (repetition), and also on the specific dynamics of the teaching force in each country (renewal). Estimations have been made for 41 of the 53 African countries, with the aid of assumptions on these parameters based on situations seen to be favourable for reaching UPE in other countries (EFA-FTI indicative framework, for example).

Chapter 1

Educational demand and teacher needs

While the needs are high, particularly for those countries furthest from UPE, in many instances they are in line with the efforts already accomplished by the governments since 2000. This result is in itself very encouraging. However, in order to consolidate physical sustainability, governments must be in a situation to further maintain the efforts made over the last five or six years, no doubt until 2020 for those furthest from the Dakar goal. The progress made since 2000 is the consequence of an in-depth reconsideration of traditional ways of managing teachers. This has affected both teacher status and salary costs. It is thus appropriate to cover these aspects in the following chapters, which examine the changes registered in the different parameters of teacher management policy, and analyse in turn the issues to do with salaries and their sustainability on the way to UPE (Chapter 2) and with teacher status (Chapter 3).


un ananas -
un ananas -


Vocabulaire :
Exercice : Construire une phrase avec
Réaliser de
Gâteau
Célébrer
Arithmet

The first Chapter, which examined teacher needs, ended on a relatively optimistic note with the observation that, in order to cover these needs, the great majority of African countries would have to maintain the rhythm of recruitment observed between 2000 and 2005 all the way through to universal primary education (UPE). However, the 2000-2005 period has

Chapter 2

Teacher salaries and the expansion of education: a fundamental link

proved to be no ordinary time. Indeed, this period corresponds to the high mobilisation by governments and the international community further to the Dakar Forum, and to crucial changes in teacher management policy. The aim of these policies was to allow for a significant increase in recruitments while reducing the average salary cost. We shall focus here on the financial aspect of these policies and come back to their implementation and consequences on teacher status in Chapter 3.

Chapter 2

Teacher salaries and the expansion of education: a fundamental link

In order to understand the implementation of these new policies, it is relevant to explore the breakdown of government current expenditure on education, and more particularly the position of salary cost within that expenditure and its impact on enrolments. On examining the temporal evolution of relative teacher salaries and that of the recruitment of new teachers in the second section of this chapter, one can easily see that recent recruitment dynamics (as a whole since 2000) are, to a large extent, connected to these salary adjustments. As far as the conclusion to Chapter 1 is concerned, this justifies looking into the issue of maintaining these salary policies in the long term for the expansion in recruitments needed to reach UPE.

Beyond the simple arithmetical calculation whereby, for a given budget more teachers are hired for lower pay, it can be asked just how relevant these policies are in social, economic and, of course, pedagogical terms. The latter point deserves to be explored in length in the light of the results of research on the subject, and will be handled specifically in Chapter 4. The first two points to do with the social and economic relevance of these policies in terms of teacher salaries will be studied in the third and fourth sections of this chapter. We shall first analyse the current level of African teachers' salaries on the basis of international comparisons before tackling the attractiveness of the teaching profession in the different countries. Although little empirical data is available on the latter aspect, we shall try to establish where teacher salary stands today compared to that of similarly qualified working individuals on national labour markets.

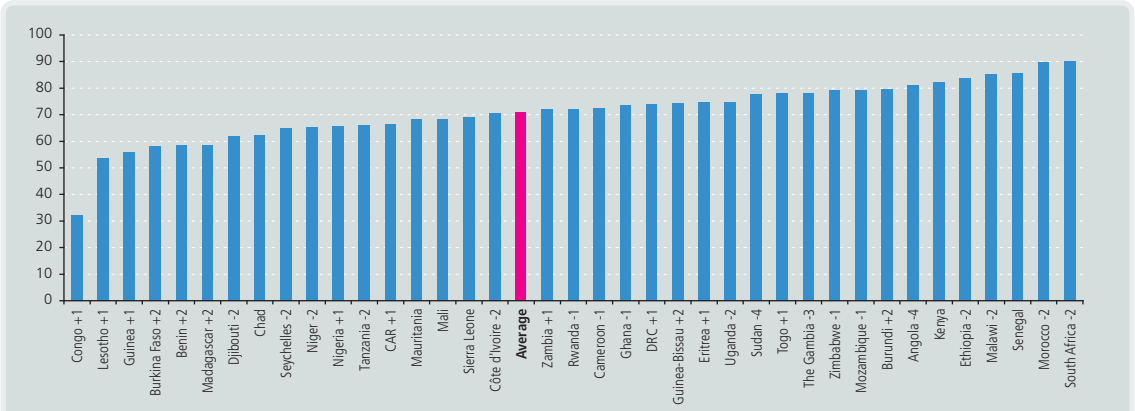
There are many constraints involved in setting teacher salary levels. Overall, the salaries proposed must be compatible with the objectives and financial resources of the education system yet at the same time ensure the recruitment of motivated, committed and competent professionals. Given the symbolic, strategic and numerical importance of the sector, setting salary levels is also the subject of much conflict. Placing this negotiation in the context of country priorities and the resulting trade-offs, especially financial ones, is thus without any doubt an important element in the success of national educational policies. In this respect, a financial simulation model estimated for the education sector constitutes a very useful instrument in facilitating the inclusion of the different stakeholders through a much wider vision of the issue. This point will be developed in the fifth section of this chapter.

1. Teacher salary level, a key parameter of educational policy

1.1. A factor that cannot be ignored due to its weight in the budget

In any education system, especially primary education, teacher payroll represents **the largest share of the education budget.** African countries are no exception to this rule. Recent data for around 40 countries illustrate this phenomenon. They demonstrate that in primary education in Africa, 70% on average of current public expenditure on education is devoted to classroom teacher salaries. Country situations are nevertheless contrasted in this respect as illustrated in graph 2.1. In most cases, the proportion fluctuates between 50% (Lesotho or Guinea) and 90% (South Africa or Morocco), and bears no relation to language or regional specificities.

Graph 2.1: Share of primary teacher payroll in current public expenditure on primary education, 2004 or nearest year (%)



Source: A variety of sectoral studies, World Bank, Pôle de Dakar, reports, UNESCO Institute for Statistics (UIS) for some countries, authors' calculations
Note: Data from 2004; however, (-t) refers to the year 2004-t; (+t) refers to the year 2004+t.

Congo appears very atypical in this graph, with only one third of current public expenditure in primary education devoted to classroom teachers. This example illustrates the case of a country that makes (explicitly or not) a budget trade-off that is more favourable to other items than teacher salary; we shall come back to this

Chapter 2

Teacher salaries and the expansion of education: a fundamental link

trade-off later. The Fast Track Initiative (FTI) indicative framework for financing UPE recommends that around one third of current expenditure on primary education be devoted to teacher salary (Bruns *et al.*, 2003). However, for a similar share of current expenditure excluding teacher salaries, countries may well have selected different kinds of organisation and ways of operating[19]. This calls for further investigation, insofar as *a priori* the make-up of such expenditure is not without some impact on the quality of education actually delivered[20].

All in all, in view of the scale of the expenditure related to teacher salaries, determining the average level of teacher salary is a central aspect of any educational policy. This is particularly so since the level of salary conditions not only the number of teachers that can be recruited with available resources but also the characteristics of those teachers at the time of recruitment.

1.2. The degree of education system coverage is closely connected to salary policy

As demonstrated by Mingat (2004), on a sample of around 50 low-income countries throughout the world, teacher salary level proves to have an influence on the performance of education systems in terms of quantity and equity. The influence on quantitative coverage[21] is somehow mechanical: the higher the average salary offered to teachers, the lesser the possibility of massive teacher recruitment with a given budget, which limits the number of children that can be enrolled. By simulating the primary completion rate according to teacher salary level, the volume of public resources mobilised and the average primary repetition rate, the same author shows, with no shadow of a doubt, that for an average African country, the completion rate hardly exceeds 75% as long as the teacher salary level is over 3.5 or 4 times GDP per capita. Thus, high salary costs tend to lead to a contraction in the provision of public education and, as a result, of overall schooling coverage, unless the different countries resort to more private financing (especially to develop private education) in order to ensure the provision of educational services.

19 By way of example, while the relative volume of expenditure excluding salaries in current public expenditure on primary education is roughly the same in Benin and Burkina (42% in 2006), this expenditure is seen to be mainly made up of pedagogic or operating costs in Benin (60%) compared to only 40% in Burkina; this leaves 40% for non-teaching staff salaries in Benin, compared to 60% in Burkina.

20 In Congo, for example, it was previously noted that only one third of current public expenditure on primary education was devoted to classroom teacher salaries. Even so, this does not mean that the remaining share (62%) is mainly devoted to pedagogic expenditure. Indeed, over three fifths of expenditure excluding teacher salaries are seen to go towards non-teaching staff salaries (62%), compared to only 38% directly devoted to pedagogic expenditure.

21 Especially the primary gross enrolment rate (primary enrolments divided by the population of theoretical primary school age) or the primary completion rate (proportion of an age group that completes a full cycle of primary education).

1.3. An average salary cost resulting from a trade-off on the combination of factors that contribute to learning

It must be taken into account that salary level is connected to certain aspects (level of recruitment, motivation, etc.) which are not the only determining factors to be considered in school organisation both from a financial and a quality standpoint. Trade-off on expenditure in education cannot be restricted to teacher salaries. It also concerns other educational expenditure, with the supply of textbooks at the top of the list, but also pupil-teacher ratios (class size) and expenditure connected to the pedagogic and administrative management of primary education. Indeed, whether looking into the best way of allocating additional resources for the system or striving to make the best of dwindling resources, seeking the best possible trade-off between the different factors mentioned above cannot be avoided.

We can rapidly describe the context of this trade-off without going directly into too much technical detail. It does of course depend on the initial conditions, and therefore on the position of the different factors within current financing, but also on the improvements expected from an increase (or a reduction) of each of the factors compared to the initial situation. Trade-off is essential whenever these improvements are not proportional to allocation levels. For example, while it is evident that a teacher should have an adequate level of initial training in order to carry out his/her duties properly, this observation alone does not suffice to decide to raise this level beyond what is considered a minimum threshold once funds are available. In other words, the decision cannot be taken by considering each factor separately but must result from comparing the costs and advantages associated with the allocation of other factors and taking into account the joint effects of these. So, in some cases, it may be found appropriate to raise the level of teacher training, and in others, it may be preferable to reduce the average class size and/or increase the textbook allocation. As measuring the marginal losses or benefits connected to changes in allocation of the different factors of school organisation is a delicate matter and subject to some debate, one should not expect a purely scientific determination of these trade-offs even if a number of factual elements can be mobilised in justifying these choices. Even so, it is important to keep in mind this rationale on trade-offs; this prevails in the choice of the level of allocation of the different factors that contribute to learning, and so their financing.

The breakdown of expenditure per pupil (unit cost) presented in box 2.1 provides more detailed information on the trade-offs to be made. It can thus be observed that the expenditure per pupil rises along with the average teacher salary and the volume of other expenditure, and decreases along with the average number of pupils per teacher.

Chapter 2

Teacher salaries and the expansion of education: a fundamental link

Box 2.1: Breakdown of public unit cost

By naming *UC* the unit cost of operating expenditure for public education, *TPR* the payroll corresponding to classroom teachers, *OtherExp* the amount of operating expenditure excluding classroom teacher salaries and *Enr* the enrolments in public education, we obtain:

$$UC = (TPR + OtherExp) / Enr$$

If α now represents the proportion of expenditure excluding classroom teacher salaries amongst total current expenditure:

$$OtherExp = \alpha (TPR + OtherExp), \text{ which implies that } OtherExp = \alpha / (1-\alpha) \times TPR$$

And therefore:

$$UC = (TPR + \alpha / (1-\alpha) \times TPR) / Enr = TPR \times (1+\alpha / (1-\alpha)) / Enr = TPR / Enr \times 1 / (1-\alpha)$$

The classroom teacher salary in public education can be expressed as the product of the number of classroom teachers (*NbTea*) and of their average salary (*AvSal*), giving:

$$UC = NbTea \times AvSal / Enr \times 1 / (1-\alpha)$$

By calling the pupil-teacher ratio in public education *PTRp*, we arrive at the following breakdown for primary education:

$$UC = AvSal / PTRp \times 1 / (1-\alpha)$$

To clarify this systemic mechanism which has financial consequences as well as consequences on the quality of learning, we can neutralise one of the two dimensions and make an analysis through a given unit cost. In this case, an increase in the average salary of a classroom teacher will necessarily be to the detriment of either the average pupil-teacher ratio or current expenditure excluding teacher salary. By contrast, if we wish to increase expenditure excluding teacher salary, we shall have to choose between a decrease in average teacher salary and an increase in pupil-teacher ratio.

The different choices can be illustrated quite simply by taking the example of a country that, due to budget constraints, could spend a maximum of 600 Monetary Units (MU) over a period of one year for each child registered in public primary school. With this amount, the government must cover each pupil's learning needs, i.e. appoint a teacher, provide educational materials and ensure that the system as a whole is correctly administered and managed. Table 2.1 presents different option possibilities for teacher recruitment, number of pupils per class and expenditure excluding teacher salary.

Table 2.1: Impact of salary policy choices and choices of goods and services on the pupil-teacher ratio, for a given unit cost (600 MU)

		Number of pupils per class		
Type of teacher		**A**	**B**	**C**
Average teacher salary (MU)		15 000	20 000	25 000
Average goods and services expenditure per pupil (MU)	50	27.3	36.4	45.5
	100	30	40	50
	200	37.5	50	62.5
	400	75	100	125

Source: Authors' calculation based on UIS data

Twelve possible scenarios can be envisaged in this country. If the wish is to recruit only type C teachers, while guaranteeing a goods and services expenditure per pupil of 400, this will lead to an average class size of 125 pupils. On the other hand, if type A teachers are recruited, with a level of goods and services expenditure of 400 MU per pupil, class size can be reduced to 75 pupils. If the pupil-teacher ratio is still considered to be too high (it is an average so there will be many more pupils in some classes), then the recruitment of type B teachers can be envisaged, with a goods and services expenditure of 100 MU per pupil to arrive at 40 pupils per class.

Multiple choices are therefore possible for the same level of unit expenditure, but these choices are not neutral in terms of the quality of services provided. A goods and services expenditure of 50 MU per pupil may turn out to be quite insufficient to provide each pupil with the minimum pedagogical input required in order to learn properly. A combination leading to an average class size of 60 might also be considered detrimental to quality. Quality-specific components are listed in Chapter 4. The idea is not to have preconceived ideas about reference values, but rather to recall that the choice of salary level must be the result of a "conscious" trade-off and not a "passive" one to the detriment of class size or pedagogical expenditure for example.

Coming back to more concrete examples, we can study the different combinations of factors to be found in sub-Saharan Africa. Due to the significant differences in budget constraints and quantitative coverage from country to country, unit costs are extremely varied as shown by table 2.2, since they range from 5% of GDP per capita (DRC, Congo) to almost 20% (Lesotho, Niger) with an average of 11% for sub-Saharan Africa.

Chapter 2

Teacher salaries and the expansion of education: a fundamental link

Table 2.2: Characteristics and cost of public primary school organisation in sub-Saharan Africa (2004 or closest year)

Country	Primary				Country	Primary			
	Teacher salary (GDP/cap)	Pupil-teacher ratio	% expend. excluding teacher salary	Unit cost (GDP/cap)		Teacher salary (GDP/cap)	Pupil-teacher ratio	% expend. excluding teacher salary	Unit cost (GDP/cap)
Benin	4.2	52	39.5	0.11	Madagascar	4.4	57.7	42.8	0.09
Burkina Faso	6.4	52.8	33.8	0.18	Malawi	4.2	58.4	15	0.08
Burundi	6.8	51.7	13.2	0.15	Mali	6	63.5	37.8	0.11
Cameroon	3.9	63.7	30.8	0.07	Mauritania	3.3	44.2	31.8	0.11
Central African Rep.	7	91.6	34.3	0.07	Mozambique	3.9	55	22.6	0.09
Chad	5.4	70.3	37.8	0.05	Niger	5.5	42.9	35	0.2
Congo	1.8	75.7	68	0.05	Nigeria	4.9	51.7	34.2	0.14
Côte d'Ivoire	4.8	42.6	25	0.15	Rwanda	3.9	60.3	22.2	0.08
Dem. Rep. of Congo	2.2	37.7	26	0.05	Senegal	4.6	50.8	37.6	0.15
Eritrea	3.9	43.7	25.3	0.12	Sierra Leone	4.2	61	30.9	0.09
Ethiopia	6.8	73.9	16	0.11	Sudan	2.2	36	22.5	0.08
Gambia, The	4.5	36.5	21.8	0.16	Tanzania	3.8	46.2	34	0.12
Ghana	3.9	32.9	28.1	0.16	Togo	6.2	33.6	12.8	0.1
Guinea	1.7	51.3	44.2	0.06	Uganda	3.2	56.1	31.7	0.08
Guinea-Bissau	1.9	37.5	31	0.07	Zambia	3.1	57.2	28.2	0.07
Kenya	5.3	39.7	17.9	0.16	Zimbabwe	4.1	39	21	0.13
Lesotho	4.4	46	46.6	0.18	**Average**	**4.3**	**51.9**	**30.3**	**0.11**

Source: Mingat, Ledoux and Rakotomalala (2008)

The breakdown of unit cost is also extremely variable. Some countries, such as Congo or Democratic Republic of Congo (DRC) have opted for a relatively low teacher salary but the proportion of expenditure excluding teacher salary is very high in Congo (68% of current expenditure, a considerable share of which is devoted to salaries for non-teaching personnel) and relatively low in DRC (26%). This choice leads to an extremely large class size in Congo (75.7 pupils per class on average, which is one of the highest ratios along with Ethiopia, Chad and Central African Republic, CAR). Ethiopia, on the other hand, seems to have decided on a higher level of salary (6.8), resulting in a high pupil-teacher ratio (73.9) and low expenditure on goods and services (16%).

The different combinations of factors are seen to have a direct impact on how the classrooms operate on a daily basis. In order for the governments to achieve the goals they have set in terms of education, these combinations must be the result of conscious and well thought out trade-offs and not the result of a series of unchecked adjustments within the education systems.

2. Trends in salary and teacher recruitment

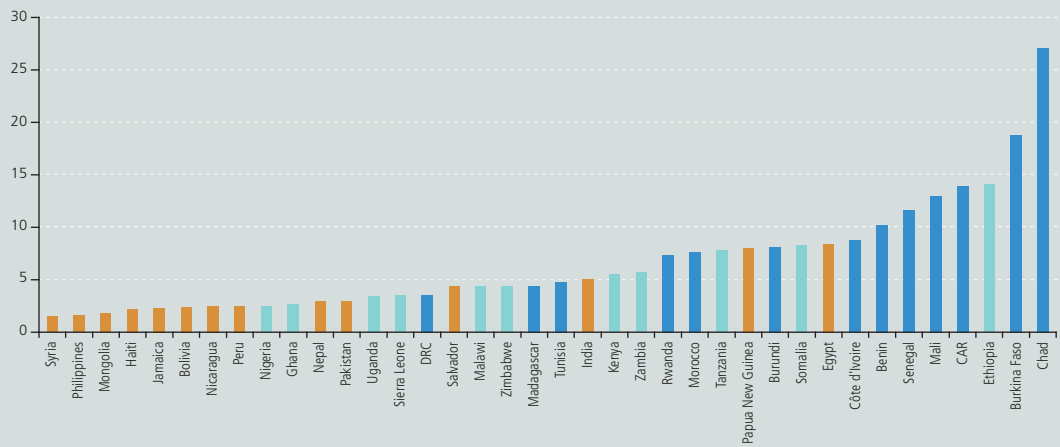
2.1. The downward trend in relative salaries of teachers[22]

2.1.1. Initial contrasting situations: colonial heritage

Teacher salary varies considerably across the different world regions, no doubt due to a multitude of reasons. However, historical context most probably plays a key role. It is difficult to obtain a series of reliable data for many countries for the distant past. Graph 2.2 presents data available for 1975 for around 40 comparable countries. Countries indicated in dark blue are French-speaking African countries, those in light blue English-speaking African countries while those in orange belong to the rest of the world, in geographic or language terms.

22 Relative salary is expressed in GDP per capita rather than in monetary value. This makes it more delicate to interpret salary trends, which are directly linked to variations in GDP. Thus, a fall in relative salary during a period of sharp increase in GDP may well correspond to an increase, rather than a decrease, in real salary.

Graph 2.2: Teacher salary in 1975 (GDP per capita)



Source: Mingat and Suchaut (2000)

It clearly appears that, at the time of this comparison, countries outside Africa, or at least those considered here, tended to have lower salary levels in units of GDP per capita than African countries. In addition, on the African continent, the average salary level in English-speaking countries was also lower than in French-speaking countries. Colonial heritage has indeed had noteworthy effects on education in Africa and distinctly shaped the way national education systems are organised and teaching staff managed.

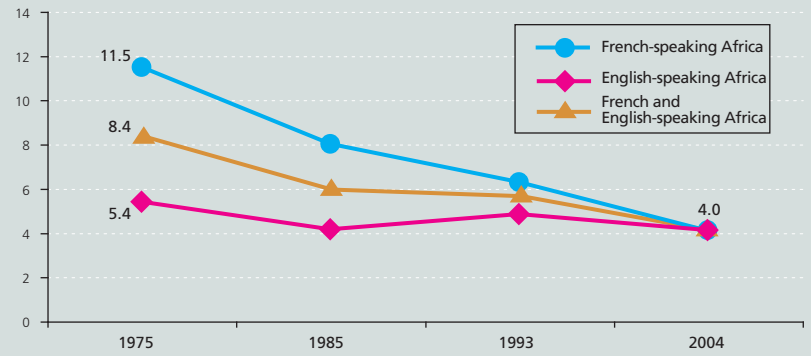
More precisely, unlike English-speaking countries where, during the colonial period, education was mainly delivered by British missionaries with the support of public subsidies, teachers in the French colonies were part of a homogeneous category of civil servants. Salaries for teachers in French overseas territories were defined by the Lamine Gueye II Law adopted in 1950, which stipulated that "Determining pay and incidentals of any kind for military and civil personnel serving in the territories (…) should in no case be based on differences of race, original personal status or place of recruitment." This law thus led to public service salary levels being indexed to those in force in Metropolitan France until the time of independence.

This is mainly the reason why the average teacher salary in French-speaking Africa was still practically twice as high (in relative terms) as that in English-speaking countries in 1975. Even in countries with a comparable level of economic development, salaries were around 60% higher in French-speaking Africa than in English-speaking Africa (Mingat and Suchaut, 2000). For Cogneau (2003), after independence, the French integration policy can partially explain the tendency of maintaining teacher salaries more in line with salaries practised in France than with the African countries' financial capacities.

2.1.2. A downward trend in average salary levels over the past 30 years in French-speaking African countries

The unique salary stand in French-speaking Africa could not hold out against national economic constraints in the long run, as made clear by the data in graph 2.3 describing the variations in average teacher salary in French-speaking and English-speaking Africa over the past 30 years. Teacher salary has fallen regularly over that period in French-speaking Africa to converge with English-speaking Africa.

Graph 2.3: Variations in average primary school teacher salary in Africa (GDP per capita)



Source: Mingat and Suchaut (2000) for 1975 to 1993; then, data compiled for this study for 2004. Grouping in this graph for 1975 to 1993 is slightly different to that in the source document. However, this does not affect the overall trends illustrated here.

Looking more particularly at average values for the continent, we can clearly observe, even if data are not perfect, a considerable drop in average relative salary for primary school teachers in Africa, since this was virtually divided by two (from 8.4 to 4 times GDP per capita) between 1975 and 2004. In relative terms, the drop was even greater in French-speaking Africa where average teacher salary was practically divided by three over the 1975-2004 period. Insofar as real economic growth was generally timid, or even negative, in most countries considered here, for the greater part of this first period, the strong drop marks a significant loss of purchasing power for teachers in this region. The overall trend does not reflect the same phenomena throughout the entire period; as we are to see in the following section, it corresponds to an adjustment in the economic situation of the countries for the major part of the period, and then, for the recent period, to an aggressive policy for reduction in salary expenditure with a view to significantly increasing the number of recruitments.

2.2. Budget austerity and large increase in status categories: explanations for the fall in real salary alongside the pace of teacher recruitment

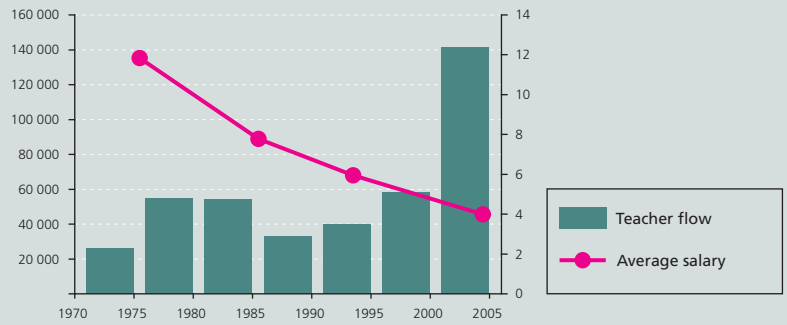
It is now appropriate to consider the rate of teacher recruitment on a parallel to salary trends. Nevertheless, it is difficult to document this for the African countries as a whole, as data are generally patchy for many English-speaking African countries. We shall therefore focus here on 15 French-speaking African countries[23] where this information is available.

23 These countries are Benin, Burkina Faso, Burundi, Cameroon, Chad, Côte d'Ivoire, Djibouti, Guinea, Madagascar, Mali, Mauritania, Niger, Senegal, Togo and Tunisia.

Chapter 2

Teacher salaries and the expansion of education: a fundamental link

Graph 2.4: Changes in average teacher salary (GDP per capita) in 15 French-speaking African countries and teacher recruitment flows



Source: Mingat and Suchaut (2000) for 1975 to 1993; then, data compiled for this study for 2004 for data relating to salaries; calculation based on UIS data for teacher flows

Graph 2.4 presents the fall in relative teacher salary, the scale of which, for this sub-sample, is close to that presented in graph 2.3, alongside the progress in teacher recruitment for each 5-year sub-period. This shows that teacher recruitment flow was multiplied by over 5 between 1970 and 2005 (with an unprecedented increase in teacher flow between 2000 and 2005) whilst average salaries in units of GDP per capita were divided by 3, falling from 12 to 4 on this sample of 15 countries.

We are to analyse each of these changes, distinguishing between two major periods: 1970 to 2000 and 2000 to 2005.

2.2.1. The economic crisis as an accelerator in the fall of teacher salaries

The salary adjustments made in a number of sub-Saharan African countries were accentuated by the economic crisis affecting the continent in the 1980's. Indeed, from the early 1980's, many African countries were confronted with macroeconomic disorders (budget deficit, balance of payments deficit, inflation), particularly following the oil crises in the previous decade. This led to structural adjustment programmes with the International Monetary Fund and the World Bank. These programmes started out from the idea that macroeconomic stability was a basic structural objective without which no development action would be possible. Moreover, the financial partners accepted to contribute in the short term but, as the volume of deficit implied vigorous action, they also wanted to see the introduction of national economic policies (structural reforms) since external financing for current expenditure could not be a sustainable option.

Thus, in the same way as for all social and economic sectors, substantial budget reductions placed a strain on education budgets. As teacher salary costs represented a predominant share of the overall civil service payroll, any attempt to control the latter led to drastic measures being taken against the teaching profession. As they were obliged to control and reduce the level of their public expenditure, some countries chose to freeze promotions for civil servants, or even to review the very basis of the salary scale. In some cases, these measures concerned all civil servants but, in others, they were specific to teachers.

In Benin, for example, between 1986 and 1992, government officials were paid on the basis of their 1986 index; in December 1999, they were still paid on the basis of their 1992 index (CSR-Benin, 2002b). In addition, the index point value was also used as an instrument for restricting teacher salary progress insofar as it was not in line with the cost of living and had only been adjusted from time to time (in Benin, point value increased from 2 100 FCFA to 2 310 FCFA in 1994, then to 2 425 FCFA in 1997 and 2 598 FCFA in 2007). Again in the case of Benin, all civil service recruitments were suspended between 1987 and 1994. In the same way, in the case of Cameroon, all civil service recruitments were suspended at the same time as the salary scale was revised sharply downwards by 66% in 1993, the consequences of which were made still worse by the devaluation of the FCFA. Teachers' real salary therefore fell sharply in the 1990's, and this can be linked to the macroeconomic crisis.

Drawing a parallel with the growth in teacher numbers, it can be observed that recruitment flows remained stable over the 1975-1985 period, with a growth of 50 000 teachers every five years, followed by a distinct slowdown linked to the restrictive measures made in the framework of the structural adjustment plans. Flows therefore fell to 30 000 between 1990 and 1995 to return to 1975-1985 levels starting 1995.

2.2.2. After 2000, the drop in relative salaries is to a great extent the result of a policy to relaunch teacher recruitments

The freeze on teacher training and recruitment within the civil service during a period of high growth in the demand for education enhanced by the Jomtien Conference in 1990, led to spontaneous adjustments by communities concerned about offering their children an education; on their own initiative, they recruited community teachers and paid for them. Governments in turn envisaged new solutions to increase teacher recruitment in the context of maintaining or even reducing the size of the civil service. These solutions varied depending upon the historical legacy and specific characteristics of each country.

Chapter 2

Teacher salaries and the expansion of education: a fundamental link

As of 1995-2000, adjustments were thus generally made in non French-speaking countries by the level of qualifications required to teach, teachers with no professional training being recruited at a lower salary than their trained counterparts. Former French colonies and a few other countries in the region chose two solutions: community teachers[24] covered by way of subsidies and/or the introduction of a new teacher status. No longer part of the civil service, this could be freely indexed on references other than the civil servant teacher salary scale.

An aggressive policy for lowering salary costs, with a view this time to a massive increase in recruitments, was therefore added as of 1995-2000 to the first "macroeconomic" type adjustment. This policy brought rapid results, with the massive recruitment of teachers between 2000 and 2005 (cf. graph 2.4, recruitment of almost 140 000 teachers compared to under 60 000 in the five previous years).

In order to more precisely separate the specific impact of these aggressive salary policies from other measures that may have affected teacher recruitment, it would have been necessary to mobilise other (especially macroeconomic) data sources and make a second parallel between growth in recruitments and trends in financing allocated to the education systems. It was not possible to mobilise exhaustive information on these other aspects. However, the absence of this additional analysis casts no doubt on the significant impact of these salary adjustment policies for the considerable increase in the number of teachers over the recent period.

It will probably be necessary to consider having recourse to, or maintaining, this type of policy in order to maintain the current rates of recruitment required to achieve UPE as shown in Chapter 1. It is appropriate to fully measure up this aspect by striving to assemble all available information on the economic relevance of these new teacher management policies. In this respect, the current situation will be examined in terms of salary and the consequences on the attractiveness of the teaching profession.

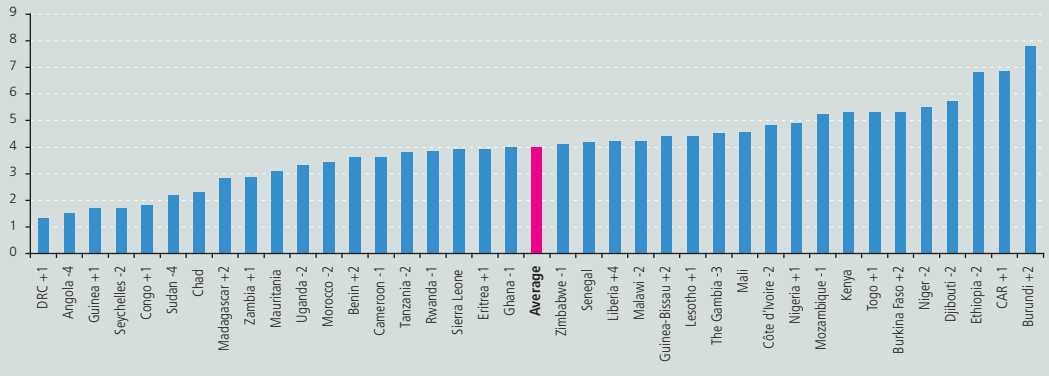
24 These are teachers recruited directly by the communities or by parent associations.

3. Current situation and evolution of average teacher salary

3.1. High variability in average salary levels from country to country

The most recent comparative data available for use were for the year 2004 (or a relatively close year). The average level of teacher salary is again expressed in units of GDP per capita in order to place the level of teacher salary in the countries' macroeconomic context. Thus, in the early 2000's, it is estimated that the average level of primary school teacher salary in Africa represents around four times the GDP per capita. Although many countries have salary levels close to this average, there are significant differences between countries, as shown on graph 2.5 below. The average salary level ranges from less than twice the GDP per capita (in DRC, Angola, Guinea, Seychelles and Congo) to over six times GDP per capita (in Ethiopia, CAR and Burundi).

Graph 2.5: Average primary school teacher salary financed either totally or partially by governments in Africa (GDP per capita, 38 countries, 2004 or closest year)



Source: Different sectoral studies, World Bank, Pôle de Dakar, a variety of reports, UIS for some countries, authors' calculations
Note 1: Salary levels indicated in this graph take community teacher pay into account when these teachers receive subsidies from the government. This is the reason for the differences with table 2.2 when the base year is the same.
Note 2: Data from 2004; however, (-t) refers to the year 2004-t; (+t) refers to the year 2004+t.

Chapter 2

Teacher salaries and the expansion of education: a fundamental link

Teacher salary levels can be compared either directly between countries (teachers in Mali who receive an annual salary equivalent to 4.5 times GDP per capita thus appear better paid than teachers in Benin whose salary represents 3.6 times GDP per capita in their country) or by referring to a reference value such as that recommended in the FTI framework which is around 3.5 times the GDP per capita for an "average" African country (that is to say where the average income per capita is in the region of 350 US dollars in 2000 value). These comparisons could be misleading if the countries differ in terms of income per capita or, in the case of the FTI indicative framework, if they are far from the country average referred to by the framework. Even within a given cultural or geographic context, African countries differ significantly in their level of economic development. The case of Mali and Benin mentioned earlier is an illustration of this: while belonging to the same geographic area (West Africa), to the same linguistic (French-speaking Africa) and economic (West African Economic and Monetary Union) community, the average income per capita is around one third higher in Benin than in Mali[25]. It therefore seems appropriate to take this into account when comparing teacher salary levels between the two countries.

We have followed this approach here and looked into the possible existence of strong structural connections between teacher salary levels and some economic and social development indicators likely to affect them. One initial assumption could be that these salaries are partly linked to the scarcity of human capital, with salaries being higher as the number of individuals likely to fill these positions is lower[26]. A second assumption, touched on in the previous paragraph, could be that these salaries depend upon the countries' stage of economic development. Analysis suggests that teachers' salary advantage in relative terms (their level of salary in comparison to the average wealth of their country) decreases as the economy grows. This phenomenon could be interpreted by the structural change that goes hand in hand with the economic development process, marked by a quantitative reduction of social groups commonly ranked as more modest than teachers (workers and employees) and the considerable expansion of categories generally ranked as being just as, or more, privileged than teachers (executives and intermediate occupations, especially in the private sector). The result is that, in a period of economic growth, teachers would generally see their relative income decrease or more precisely would experience an increase of their nominal salaries (expressed in money) lower than that of economic growth.

The empirical research conducted in the framework of this study shows that there is indeed a negative correlation between the average level of teacher salary in a country and the overall available supply of human capital. However this relation is relatively weak and only accounts for a tiny part of the differences in teacher salary observed across the different countries[27]. The impact of the level of economic development in explaining the differences in salary levels between countries[28] seems, on the other hand, more significant.

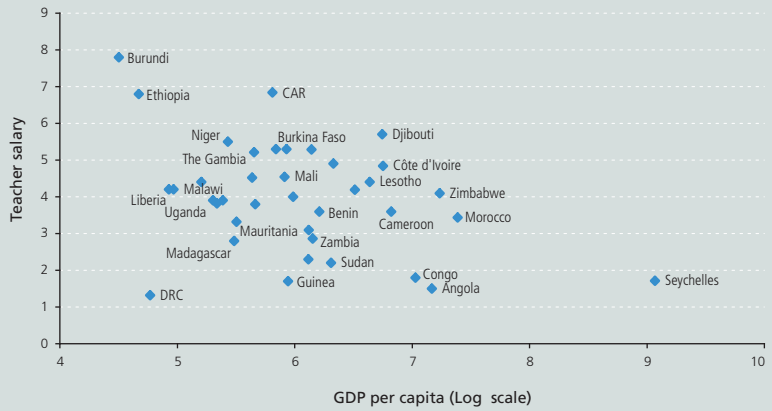
25 Data for 2004.

26 This situation of scarcity also endows teachers with a particular influence, teachers representing in these specific conditions a high proportion of elected representatives and political decision-makers (Mingat and Suchaut, 2000; Mingat, 2008).

27 There is no single variable for coming to terms with this supply, at empirical level. The analyses mentioned here show that taking into account the adult literacy rate, the secondary enrolment rate or the school life expectancy leads to qualitatively comparable results. Correlation coefficients (in absolute value) of teacher salary are 0.20 with the adult literacy rate and 0.28 with school life expectancy (which gives an approximation of the average duration of schooling for the adult population).

28 The supply of human capital does not contribute to explaining the salary differences between countries, when reasoning at a given level of economic development (GDP per capita).

Graph 2.6: Average salary of public primary school teachers (GDP per capita), according to the level of income per capita in their country[29] (38 countries, 2004 or closest year)



Source: Different sectoral studies, World Bank, Pôle de Dakar, a variety of reports, UIS for some countries, authors' calculations

Graph 2.6 illustrates this general trend while at the same time revealing its limits. The average relation between teacher salary and income per capita is on the decrease but country situations are relatively dispersed around this average tendency. More than the modest overall statistical relation characterising this dispersion, it is the low reliability of the relation that leads to the conclusion that teacher salaries bear little relation here to the level of the countries' wealth: omitting the Seychelles reduces the explanatory capacity of the model by one third and omitting Burundi as well (the two extreme situations) totally cancels out the relation.

The analysis conducted here highlights the variety of situations in African countries in terms of teacher salary. The salary gaps observed are not limited to structural differences in the countries' development and therefore have more specific causes. It is obvious that in this area and, contrary to a number of preconceived ideas, African countries are not all confronted with the same problems and have very distinct characteristics.

29 The equation of the curve trend is estimated by $y = -0{,}668x + 8{,}037$, with an $R^2 = 0{,}153$.

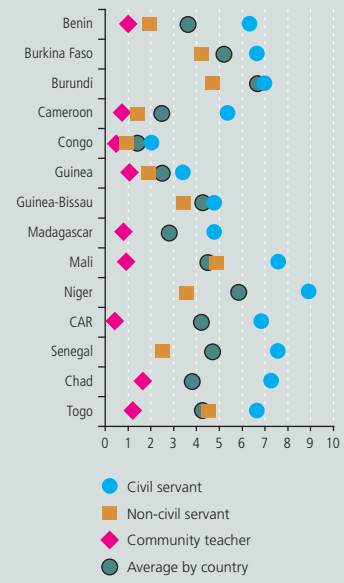
Chapter 2

Teacher salaries and the expansion of education: a fundamental link

3.2. A multitude of status categories and salary levels

We have just seen that average teacher salaries in units of GDP per capita are extremely varied on the African continent. These average salaries result from the coexistence of different salaries according to the status categories of teachers in each country, especially for the recent period, and so from a level of heterogeneity to be estimated.

Graph 2.7: Teacher salary (GDP per capita) according to status, in several French-speaking African countries (2004 or closest year)

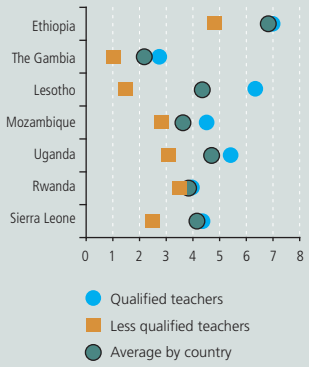


Source: CSRs, financial simulation models, authors' calculations

Graph 2.7 clearly shows the extreme variety of average salaries across French-speaking African countries (to which Guinea-Bissau, in a comparable situation to neighbouring French-speaking countries, has been associated) and the sometimes very high dispersion around this average value according to status. For countries like Cameroon and Benin, civil servant teacher salary is indeed three times higher than that of contract teachers, while the salary of both these categories of teachers is relatively close in Burundi and Guinea-Bissau. It can also be noticed that, for countries where this category exists and where data are available, community teacher salaries are indeed uniform, but at a much lower level than that of their public sector counterparts, at around one unit of GDP per capita.

English-speaking and Portuguese-speaking countries which have, for their part, generally opted for recruiting teachers with no professional training, also show very little uniformity in terms of their teacher salaries, although in a more limited range.

Graph 2.8: Teacher salary (GDP per capita) according to qualifications, in several English-speaking African countries (2004 or closest year)



Source: CSRs, financial simulation models, country reports on teacher situation, authors' calculations

There are noteworthy disparities in average salary in Lesotho and in The Gambia depending on qualifications (qualified teachers earning between three and four times more than the less qualified teachers) but the difference is relatively less significant in the other countries studied (below 1.7).

The variety of salaries for the different categories of teachers within the education system is a common observation in a large number of African countries, whatever the language or geographic aspects. This brings up issues of social equity and long-term sustainability, especially with regard to the situation of community teachers and the questionable decency of their level of salary.

3.3. A reverse trend in the recent period

The question as to the sustainability of these salary policies, which feature a wide variety of status categories and situations for a single activity, is particularly acute. For some time now, many governments have made more and more declarations on this point, in favour of a progressive improvement in teacher salary, particularly under the pressure of protest from social partners.

In this respect, different movements can be observed aimed at facilitating the integration of community teachers into the official contract teacher status. In Benin, for example, the government decided in December 2007 to place all community teachers under contract (around 10 200 in 2007, i.e. 38% of all teachers in public primary schools) whereas they had only received a modest subsidy from the government until then. Madagascar has also covered salary costs for the majority of its community teachers (FRAM teachers) since 2005, whereas parent associations are still in charge of managing these teachers. On its side, Cameroon decided in 2006 to contractualise all its temporary contract teachers (IVAC) paid a salary of 1.4 times GDP per capita, by granting them a contract status with a salary level close to the FTI reference of 3.5 times GDP per capita.

These adjustments are often the result of fierce discussion between the governments and social partners but also with development partners, since additional financial support is generally needed, at least in the early stages. Alignment on the FTI indicative framework makes the possibility of substantial external financing easier, and the integration measures possible and credible *a priori*. Contractualisation of the IVACs in Cameroon was negotiated so that government commitments towards education could enable all contract staff to be covered by the domestic budget in the medium term. Financing is therefore *a priori* sustainable since it is mobilised at national level.

Beyond the financial sustainability of this type of measure (long-term government commitment to increase financing of the education sector in order to take over from external aid, etc.), the integration process must also be examined in terms of how it is handled, how it can be generalised, and how it can be accompanied by additional measures such as type and duration of professional training. All these aspects must be determined sufficiently upstream in the process in order to correctly anticipate the consequences of this type of measure and prepare for it in the best possible way.

Beyond the integration of community teachers who are often seen to be on the fringe compared to the other teacher categories, the thinking in many countries now seems to be directed towards an overall adjustment of the payroll. This should be the subject of careful analysis in each national context since it could be detrimental to the progress recently registered in enrolments if the extent of the adjustments compromises the financial capacity of governments to recruit the number of teachers needed to reach UPE. On this aspect, it has already occurred that new payrolls, more favourable to teachers, adopted without due consideration being given to their financial impact, have simply not been applied due to budget constraints. A phenomenon of this kind was observed recently in Liberia and in Uganda (World Bank, 2007e; Mulkeen, 2008).

4. How relevant are current salaries in making the teaching profession attractive?

Over and above the set of factors mentioned previously, maintaining a high rate of teacher recruitments as required to reach UPE, justifies more prospective thinking. It is indeed important on the one hand to know how substantial the number of candidates with the desired academic qualifications for teaching is in each country and, on the other hand, to determine if salary levels on offer remain attractive with regard to other job opportunities. As far as the salary aspect is concerned, we explored earlier in this chapter the international comparative perspective of African teacher salaries (cf. Section 3). We now take a national standpoint, in reference to each country's labour market.

4.1. Are there adequate human resources in each country to recruit the future teachers?

It was possible to estimate a potential supply for 18 African countries where data were available (household surveys) to be looked at alongside teacher needs. In the analyses carried out, we have considered that the qualifications required to become a primary school teacher correspond to studies ranging from lower secondary school completion to upper secondary completion. This range does indeed cover the duration of study of the majority of primary school teachers in most African countries. Moreover, as we have focused on the young population liable to opt for a teaching career, we have restricted the analysis to individuals of between 25 and 34 years old. Table 2.3 presents the results obtained.

For the 18 countries as a whole, the estimated "pool" is constituted of around 2.7 million young people, three quarters of whom are already in employment, but in the informal sector; the other young people, who declare to be unemployed at the time of the survey, make up 27% of the potential candidates. For all the countries concerned, 1.1 million new teachers will be necessary with a view to achieving UPE. Even if the year selected for the estimation of potential candidates does not match with the base year for the projection of teacher needs, simply confronting teacher needs and the number of young people in the working population able to potentially fill this kind of job indicates that the needs have every chance of being covered, for most countries. For all 18 countries, the estimations suggest a figure of two to three potential candidates per teaching vacancy.

Chapter 2

Teacher salaries and the expansion of education: a fundamental link

Table 2.3: Estimation of the number of potential candidates (young people between the age of 25 and 34) for teaching positions in primary school and the average annual number of new teaching positions

Country	Potential candidates				Teacher needs			Ratio (1)/(2)
	Year	Total (1)	% informal sector	% unemployed	Period	Total (2)	Annual average	
Benin	2003	21 400	93.2	6.8	2006-2015	34 223	3 803	0.63
Burkina Faso	2002	27 600	64.8	35.2	2006-2020	69 435	4 960	0.40
Burundi	2002	10 500	60.7	39.3	2006-2020	42 738	3 053	0.24
Cameroon	2001	296 900	59.3	40.7	2006-2020	48 943	3 496	6.07
CAR	2003	26 300	74.7	25.3	2008-2020	15 167	1 264	1.74
Chad	2002	22 000	70.3	29.7	2005-2020	31 548	2 103	0.70
Congo	2005	147 600	60.1	39.9	2006-2015	8 009	890	18.43
Côte d'Ivoire	2002	266 800	70.1	29.9	2007-2020	69 786	5 368	3.82
Ethiopia	2004	291 800	67.6	32.4	2006-2020	312 298	22 307	0.93
Ghana	2003	466 800	90.1	9.9	2005-2015	54 078	5 408	8.63
Guinea	2002	50 400	63.3	36.7	2006-2015	32 326	3 592	1.56
Madagascar	2001	211 600	88.0	12.0	2006-2020	39 533	2 824	5.35
Malawi	2002	142 000	88.7	11.3	2007-2020	26 583	2 045	5.34
Mali	2004	44 800	64.5	35.5	2006-2020	34 268	2 448	1.31
Mauritania	2005	15 200	67.4	32.6	2006-2020	8 605	615	1.77
Senegal	2001	51 400	52.1	47.9	2006-2020	39 819	2 844	1.29
Uganda	2002	250 000	88.1	11.9	2005-2020	173 530	11 569	1.44
Zambia	2002	320 800	83.6	16.4	2006-2015	69 866	7 763	4.59
18 countries overall	**-**	**2 664 200**	**72.6**	**27.4**	**-**	**1 110 756**	**4 797**	**2.40**

Source: Calculations based on national data and those from table A1.3 in appendix

These results are reinforced by using real data on the number of applicants per vacancy in the official teacher recruitment examinations. In Malawi in 2005, for example, 28 000 candidates were registered for 2 900 vacancies in the pupil-teacher recruitment exam, i.e. about 10 candidates per position (World Bank, 2007d). In Benin in 2007, almost 6 candidates per vacancy registered at a similar exam (CSR-Benin, 2008) and there were 3.5 candidates per vacancy in Central African Republic (CSR-CAR, 2007).

It is however appropriate to qualify the above results, for two main reasons. Firstly, the pool is constituted primarily of individuals already in employment (although in the informal sector). It may therefore seem unrealistic to suppose that all these individuals would be spontaneously interested in teaching. The second reason is that some workers in the informal sector may possibly earn a higher income than teachers in the public sector or employees in the modern sector in general, as we shall see later in the case of Burkina Faso. Therefore, it is also essential to consider the financial attractiveness of teaching.

4.2. Attractiveness of teacher salary

If teacher salary in a given country is very much below the average salary in force on the national labour market, difficulties in recruitment and also possible early leaving from the profession are to be anticipated. If on the other hand the salary is much higher than the average salary, then resignations should be uncommon and the number of applicants much higher than recruitment needs. Knowing where current average teacher salary stands in relation to the situation on the national labour market is therefore important for the management of the system and at individual level.

4.2.1. Salary scale and overall structure of the labour market in sub-Saharan Africa

To have a better understanding of the relative position of teachers on their country's labour market, it is essential to keep in mind its structural components (types of employment available in the economy, average salary levels offered to individuals with comparable qualifications to those of teachers, etc.). In most African economies, two main employment sectors generally stand out due to their size and structure. The so-called "modern" employment sector, usually limited in terms of numbers of jobs, covers all formal kinds of public and private employment. As for the non-structured sector, it covers so-called "traditional" jobs, in agriculture in rural areas, as well as "informal" jobs in urban settings. This sector provides around 90% of all employment in a typical African country (cf. table 2.3) at the present time and it clearly transpires that this will still be the principal source of employment for the coming 10 to 15 years.

Table 2.4: Average structure of employment in sub-Saharan African countries (2004 or closest year)

Employment sectors	% of total employment
Modern sector	10.3%
Of which public sector	4.9%
Of which private sector	5.4%
Informal sector	89.7%
Of which agriculture	64.9%
Of which non-agricultural	24.7%
Total	100%

Source: Mingat (2006)

Since teachers belong to the modern employment sector, salaries practised in this sector must serve as a reference for appreciating their specific situation. Moreover, it is essential to draw comparisons with individuals who have academic qualifications that are comparable to those of teachers, in either of the two major employment sectors. As before, we have targeted young people between the age of 25 and 34 here, with a level of education ranging from lower secondary completion to upper secondary completion.

Table 2.5 provides the level of income (annual basis, expressed in units of GDP per capita) of individuals between the age of 25 and 34 who have completed lower or upper secondary education, according to the employment sector. The (rare) information available concerns nine countries for which it has been possible to distinguish between income from the public sector and income from the private sector, on the modern employment market.

Table 2.5: Annual income (GDP per capita) of individuals aged between 25 and 34 who have completed lower or upper secondary education, according to employment sector

	Modern sector		Informal sector	Average teacher salary
Country	Public	Private		
Burkina Faso (2002)	4.66	3.83	4.07	6.4
Cameroon (2001)	1.98	1.82	1.02	3.9
Chad (2002)	4.32	3.81	3.52	5.4
Côte d'Ivoire (2002)	3.38	2.84	1.49	4.8
Madagascar (2001)	2.65	2.06	1.22	4.4
Mali (2004)	5.00	2.48	2.36	6.0
Mauritania (2005)	2.18	3.26	2.68	3.3
Sierra Leone (2003)	5.35	6.27	4.37	4.2
Uganda (2002)	3.40	3.60	2.30	3.2
Average	**3.66**	**3.33**	**2.56**	**4.6**

Source: National data, authors' calculations and table 2.2 for salaries

For all nine countries, the level of declared income is higher on average in the public sector than in the private sector. Individuals with academic qualifications comparable to those of teachers but who have not managed to find a job in the modern sector are obliged either to work in the informal sector, or to remain unemployed[30]. For individuals working on a "stable" basis in the informal sector, the level of declared income is lower on average than the average level of income of individuals in the same age group with comparable qualifications but who have a modern public or private job.

This average structure varies depending on the country, as demonstrated by the situation observed in Burkina Faso where the average annual income of the young people targeted appears higher in the informal sector than in the formal private sector. In Mauritania, the informal sector seems to pay better than the public sector. In the vast majority of cases, modern private sector and informal sector salaries are lower than those in the teaching profession and also than the reference set for this type of employment in the FTI indicative framework (3.5 times GDP per capita). Although there are clear trends, there are also special situations, suggesting that hasty generalisation should be avoided. If data are available, then it is preferable to conduct analysis at national level in order to clarify this aspect.

4.2.2. Making a more subtle comparison between the situation of teachers and that of other members of the working population

There are two components to the degree of attractiveness of teacher salary: a "start of career" component and a "progress during career" component. Firstly, it is important to consider the salary offered to teachers in the early years of their career compared to salary conditions in other employment sectors for workers at the start of their career whose academic qualifications are comparable to those of teachers. Secondly, it is important to compare salary progress during the career, for teachers and for other workers in the modern sector (including teachers in the private sector, data permitting)[31]. In order to carry out this comparison, we can begin by comparing salary scales as in the case of Liberia, Malawi, Uganda and Zambia presented in box 2.2.

30 The distinction between the unemployed and workers in the informal sector is however not perfect since some individuals who declare to be unemployed do no doubt work on and off in informal activities.

31 Statistically, this simply means comparing the returns to one year of experience for teachers with the returns to one year of experience for the other workers in the modern sector.

Chapter 2

Teacher salaries and the expansion of education: a fundamental link

Box 2.2: Progress in the salary of teachers during their career in four countries

In Liberia, government-paid teachers fall under general civil servant status. Salary progress is related neither to seniority nor to teacher performance. Salary was set at around 55 US dollars per month in 2008. It differs very slightly according to the teacher's level of qualifications. A new salary scale has been prepared by the Ministry of National Education, but is not yet in force; it simply authorises more differences in salary according to the teacher's level of qualifications, but does not take into account the teacher's seniority.

In Malawi, teachers are also aligned on the civil servant salary scale, with automatic rises of around 2% per annum up to the maximum rung. Thus, a certified teacher starts his/her career at rank M with 45 US dollars per month (i.e. 3.4 times GDP per capita in 2007), and this figure increases up to a maximum of 13% if the teacher remains at the same rank (i.e. 3.8 times GDP per capita in 2007). The transition from one rank to another is made on a competitive basis, after a minimum of four years service. The maximum salary in rank L is 43% higher than the maximum salary in rank M. That said, the examinations for changing ranks are very selective. For example, the success rate for transition to rank L was only 13% in recent years.

In Uganda, the salary scale for teachers is the same as for the civil service. It is based on professional qualifications and automatically progresses with seniority. Thus, a qualified primary school teacher reaches the top of the salary scale after 10 years of activity; at this maximum point, his/her salary is then 15% higher than his/her starting salary. Once this level is reached, a salary rise is only possible if the teacher is promoted to the position of headmaster/ headmistress. However, unqualified teachers receive a constant salary throughout their career.

In Zambia, the majority of new teachers recruited have a minimum of 12 years schooling. These "certified" teachers receive an annual salary of 3 292 US dollars at the start of their career. Their salary rises to a maximum of 11% after seven automatic annual increases linked to seniority.

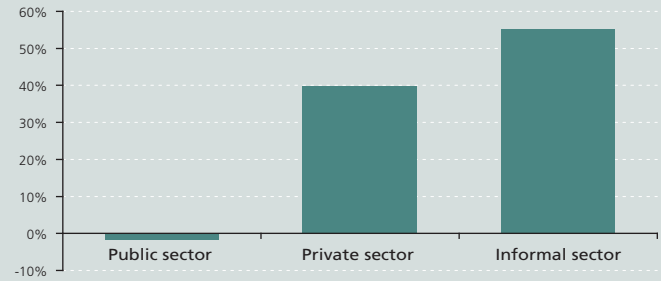
Source: Mulkeen (2008) and World Bank (2007d,e,f)

A more detailed analysis can be made using household surveys or more specific surveys on employment, which provide information not only on the level of education and training and the job filled but also on salaries or income. The sample used must be large enough to enable significant comparison between teaching jobs and other activities. Survey data used in the framework of this study do not fulfil all these conditions, with the exception of that for Mali (EPAM, 2004). The permanent household survey in Mali enables public sector teacher salaries to be distinguished from other workers' salaries (in the case of this country, it was also possible to distinguish public sector workers from those in the private sector and those in the informal sector). The analysis also targeted young people between the age of 25 and 34 and provides a sample of individuals who are comparable from the point of view of duration of their initial training and professional experience[32].

32 In concrete terms, we make a statistical analysis of the logarithm of the individual income according to the highest rank reached and seniority, with the employment sector and gender as additional variables.

On this basis, there is seen to be no significant difference between the income declared by teachers in the public sector (in the 25 to 34 age group) and other public sector workers belonging to the same age group. On the other hand, the analysis suggests that teacher salaries are higher (by 40%) than the average salary of those working in the modern private sector and who have a similar profile in terms of initial training and duration of their professional career. The gap is over 50% with the informal sector.

Graph 2.9: Salary gap between teachers in the public sector and other categories of workers, comparable in terms of professional experience and duration of schooling (Mali, 2004)*



Source: Authors' calculations based on individual data from the 2004 EPAM
** Simulations based on an econometric model (1 644 individuals between the age of 25 and 34; R^2=28%).*

Consolidated results of the investigations on the size of the stock of potential working population for the recruitment of primary teachers and of the degree of attractiveness of teacher salary suggest that, in the case of Mali (i) there is a very high number of people with the basic academic qualifications for teaching in primary school and that (ii) the level of teacher salary in the public sector is way higher on average than the equilibrium salary on the national labour market (if this salary is based on salary conditions in the modern private sector). Ideally, this type of analysis should be conducted in each country in order to better comprehend the situation of teacher salaries.

5. Placing the teaching issue at the heart of educational policy trade-offs

From the different analytical elements touched on above, the complexity and multidimensional nature of the teaching issue is clear as seen from the salary angle alone. Even so, this equally central and controversial aspect is, on its own, far from summing up a country's educational policy. As explored in detail in the first section of this chapter, the budget constraint faced by each government implies making trade-offs between the different major options of educational policy, in terms of quantity, quality and organisation, in each cycle of education, in order to maintain the coherence of the education system. Educational policy can indeed not generally be reduced to the sum of all that would in principle be ideal, since logistic, and above all financial, constraints play an important role.

Policy makers must therefore consider each of these aspects, define the genuine issues involved in developing the system and identify the options: from the most comfortable to the most constrained. They must then estimate the costs and finally compare them with available (domestic and international) resources. In this way, it will be possible to determine the best possible balance. It is generally helpful to use a sectoral financial simulation model for this type of issue, as it facilitates the trade-off process by testing the logistic feasibility and the financial sustainability of different scenarios. It also makes it possible to estimate the financial gap to be filled for implementation of the sector policy and so evaluate the rate of potential dependence on external aid, as far as the field of education alone is concerned.

Including all the sub-sectors in the same model makes it possible to check the "compatibility" of the sub-sector policies (the education sector is usually managed by several ministries, each with its own view of the development of the sub-sector for which it bears responsibility) and approve an overall coherent and shared policy for the development of the education system.

In addition, the logistic and financial consequences of some aspects (to do with salary issues for example) can be looked at separately and tested, and so allow for enlightened decisions. Nevertheless, it remains obvious that discussions around such a sensitive issue as teacher salary policy cannot be limited to analysis on financial sustainability. They must involve multiple exchange at different levels and between different stakeholders: 1/ between technicians and policy makers within the ministry, the former analysing the consequences of the measures envisaged by the latter, 2/ between the ministry and its national ministerial partners (ministry of finance, ministry of planning and departments in charge of establishing the Poverty Reduction

Strategy Paper (PRSP), who participate in inter-sectoral trade-offs or who are competing for the allocation of the country's public resources), 3/ between the ministry and social partners (parent associations, teacher unions, civil society) insofar as a sectoral development programme often involves conflicts of interest and rights between the different stakeholders and 4/ between the ministry and external development partners to enable the country to attract additional resources.

The final trade-offs will be the result of the negotiations that will take place between the different stakeholders involved in the system. They will have to take into account the often-diverging aspirations of each and everyone, but a balance must be found around explicit consideration given to the consequences of the different development scenarios envisaged. The shared and transparent recourse to this type of simulation model most certainly provides the possibility of establishing social dialogue at the heart of educational policy choices and thus of fostering consensus building, which is essential to the implementation of ambitious education system development policies.

The commitments made by the international community at the Jomtien Conference (1990) and reiterated at the World Education Forum in Dakar (2000), marked a decisive turning point in the dialogue on development policies by placing education at the heart of the debate, especially through the goal of universal primary

Chapter 3

New teachers and progress in enrolments

education. Nevertheless, most African countries have found it difficult to address this challenge and provide schooling in accordance with the growing demand this represents, particularly in terms of teacher recruitment. This has led them to totally rethink both the recruitment process and the profile of teachers.

Chapter 3

New teachers and progress in enrolments

The previous chapter underlined the central role of teacher salary costs in educational policy trade-offs. Taking this constraint into account and with the aim of generalising primary schooling and so of massively recruiting teachers, new teacher management policies, adapted to national contexts, were devised at the end of the 1990's.

The purpose of this chapter is to go over the contextual elements that gave rise to these new initiatives, and take stock of the steps taken at country level for the expansion of teacher recruitment; as already seen, this issue has been addressed in many different ways. The second section will look into how these reforms have been implemented (status categories, staff training, etc.) and their impact on enrolments.

1. Political context of the reforms in teacher recruitment

1.1. An enabling context for changes in the composition of the teaching profession

1.1.1. Impact of structural adjustment plans and budget constraints on education systems

As seen in Chapter 2, sub-Saharan African countries were faced with a serious economic crisis in the 1980's. Under pressure from international financial institutions, the African economies, which were suffering from significant structural financial deficits, were then obliged to adopt measures with a view to more rigorous budgeting, by reducing government expenditure in the first instance, and especially the payroll, where the teaching profession was high on the list. This tendency became more pronounced in the 1990's when the International Monetary Fund (IMF) set new terms for granting loans, concerning not only the traditional area of monetary and tax policies but also the management of the public sector. While agencies such as the World Bank encouraged African governments to reform their education systems with the aim of ensuring an education for all, the IMF obliged many governments to reduce the level of their public expenditure with a view to ensuring some macroeconomic stability and to solving problems related to the economic crisis. In 1999, it set up the Poverty Reduction and Growth Facility (PRGF), an instrument that enables the access of low-income countries to concessional loans for supporting poverty reduction programmes and strategies as developed in Poverty Reduction Strategy Papers (PRSP). The latter are the reference for any IMF or World Bank loan or debt relief transaction.

Since the PRGF was adopted, the governments concerned have had to limit their public expenditure and ensure sounder management of the public sector. In this framework, ceilings were introduced for the overall civil service payroll and, in some cases, these may be part of the conditions for granting an IMF loan (ActionAid International, 2007). This measure had for direct effect a freeze on the recruitment of teachers and consequently a reduction in the teacher workforce.

1.1.2. Teachers recruited directly by the communities: people's response to public authority failings

• Priority is often given to macroeconomic issues…

The freeze on civil servant teacher recruitment and training further to the drop in public funding had two major consequences initially: a rise in pupil-teacher ratios in the classroom on the one hand and the emergence of teachers recruited and paid by parents on the other hand. Concerned about offering their children an education, the communities have indeed attempted to address teacher shortage by recruiting community teachers. Many communities have had recourse to this category of teachers since the 1990's, in French-speaking, English-speaking and Portuguese-speaking countries alike.

What community teachers in the different countries have in common is that they respond to a need for schooling, which the public authorities have been unable to satisfy. They have generally been selected amongst the most qualified people available locally and have often had no professional training. They may have been recruited to teach in schools resulting from local community initiatives or else in under-allocated public schools. In Mali, for example, the relative fall in the number of teachers in the public sector in the early 1990's (from 7 720 in 1990-1991 to 7 301 in 1994-1995) explains why the weight of enrolments in public schools dropped from 80% to 63% between 1996-1997 and 2004-2005. As a result, the share of non-public schools (private, community and *madrasahs*) has risen and community teachers alone represented 30% of primary school staff in 2004. In Zambia, in spite of the availability of a high number of qualified teachers, the government and parents have, over recent years, recruited teachers (known as volunteers) who do not have the academic qualifications traditionally required.

• … which are sometimes combined with considerable political instability

The emergence of community teachers is not only linked to economic difficulties but also to periods of political instability that have directly affected normal operation of the education systems in some countries. This is the case for example in Sierra Leone or in Chad. Eleven years of civil war (1991-2002) have had serious consequences on the education system in Sierra Leone and in particular on teacher supply. At the end of the civil war, the considerable expansion in primary school enrolments, resulting more particularly from the free education policy introduced by the government, gave rise to a growth in the number of teachers recruited locally by parent associations, especially in public schools. Thus, in 2003, teachers who were not paid by the government represented 20% of the teaching profession in government-financed primary schools (UNESCO, 2005). This phenomenon is particularly visible in public primary schools in rural areas where community teachers generally represent more than half of the teaching force. In Chad, the emergence of community teachers is also

part of a particular national context, that of the socio-political crisis experienced by this country between 1975 and 1990, when interruptions prevented education services from operating properly. So, "spontaneous schools" started to appear as of 1985, at the end of the civil war, and have continued to develop over the years.

In Central African Republic (CAR), the education system has been severely affected by the different socio-political crises experienced by the country since 1996. This context of political instability partly explains the decline in expenditure devoted to education. Representing 28% of public expenditure excluding debt in 1996, this expenditure was estimated at only 14% in 2005 (CSR-CAR, 2007a). These difficulties were conducive to the emergence and development of community teachers recruited locally and paid exclusively by the communities. Today, they represent a sizeable proportion of the teaching profession: in 2005 in basic education 1 (public primary education), community teachers represented over 40% of all teachers (CSR-CAR, 2007a).

• A single denomination for a wide variety of status categories

While the reasons for the emergence of community teachers seem to be relatively similar from one country to another, this phenomenon does nevertheless conceal different country realities, and a wide variety of legal situations surround this issue.

When the first community teachers came on the scene, these initiatives were considered with some suspicion in the vast majority of African countries. This is easily explained by the fact that the public authorities had no direct control over the recruitment and management of these teachers, since the management committees of the public or community schools asserted these prerogatives. Thereafter, the development of the phenomenon prompted some governments to admit that community teachers were of use and so to supervise this practice. Even so, the issue was addressed differently from one country to another. In some countries, such as Mali and Togo, governments encouraged and supported the emergence of these teachers by creating a statutory framework for their activities. Mali is indeed one of the few African countries where the government drew up a set of legal and statutory texts aimed at providing a framework for community school practices, which were considered as belonging to the field of private education. This legal framework, adopted in 1994, recognises the existence of community schools and their right to self-management. The process of community school recognition was initiated at the same time in Togo. As of 1995, the Togolese government introduced a set of measures providing an administrative and pedagogic framework for schools originating from local initiatives (EDIL), which had been officially recognised by the government in 1994. The public authorities wanted the EDILs to be integrated into the national education system while maintaining their community management. In this framework, the government participated in the assignment of permanent teachers to the largest EDILs and financed some EDIL teachers on the national budget. As a result, by 1999, 16% of all EDIL teachers were paid by the Togolese government (Marchand, 2000).

Unlike Mali and Togo, some countries did not introduce a legal framework designed to control the teachers recruited by parent associations. This is the case in Chad where, in spite of the legal framework for private education in force since the 1971 decree, few measures have been set up in terms of an administrative and pedagogic framework for community teachers. In Cameroon, even if the government seems much more tolerant than in the past, it has not however introduced a specific legal status for community schools, nor consequently for teachers working in these schools but also in public schools. Now, it is important to point out that community teachers constitute a significant proportion of primary school teachers, especially in the public sector: in 2002, they represented 30% of all teachers in public primary schools in Cameroon. If we take the teachers paid *de facto* by the users in private primary schools (23% of primary school enrolments are in the private sector which is only very slightly subsidised), over 40% of primary school children have a teacher paid by parents (CSR-Cameroon, 2003).

1.2. Transformation and restructuring of the teaching profession in sub-Saharan Africa

Though stringent budget measures have harshly affected the conditions of teacher recruitment and salaries, recent initiatives by governments and the international community to support the development of primary education have fostered a second phase in restructuring the teaching profession in Africa around aggressive policies for the reduction of salary costs. In this context too, government response has greatly varied, yet with a distinct difference between policies implemented in French-speaking and in English-speaking countries.

1.2.1. Adjustments made via the level of qualifications in non-French-speaking countries

In order to address the challenges of universal primary education (UPE), non-French-speaking countries have generally recruited teachers with no professional training, and with lower qualifications than those usually required, at lower salary levels.

Many governments found it extremely difficult to effectively address the massive arrival of children in primary school, especially following the abolition of tuition fees. This was the case in Malawi where the government introduced short accelerated teacher training further to tuition fees being abolished in 1994. Before then, the majority of primary school teachers received an initial two-year training or three years of distance training[33]. Both these types of training were done away with after introducing free primary education. Between 1994 and 1997, thousands of teachers were sent to schools after only a two-week training session. Starting 1997, a programme named MIITEP[34] was set up, consisting of training over a period of two years, including theoretical lessons and practice *in situ* in the classroom.

33 Malawi Special Teacher Education Program.

34 Malawi Integrated In-service Teacher Education Program.

Over 23 000 teachers benefited from this programme between 1999 (first teacher cohort) and 2005. The government did away with MIITEP training in 2005 due to strong criticism as to the quality of education delivered by the teachers coming out of the programme. It was reintroduced in a new form, under the name of IPTE[35] lasting two years including one year of theoretical training and one year in the classroom. So, although the relatively low levels of salary of primary school teachers in the 1990's did not oblige the Malawi government to create a new category of teachers, apart from the category of civil servant teachers, it had nevertheless to think up new solutions in order to rapidly address the growth in enrolments while at the same time limiting public expenditure.

Similar measures were adopted in Mozambique and Uganda. The periods of political instability during the 1970's-1980's and the economic difficulties that continued into the following decade had harsh effects on these countries' education systems. In Uganda, during the 1990's, it was not possible to attract trained teachers to the profession due to the low level of salaries and irregularities in salary payments, all the more so in rural areas. As the supply of trained teachers was inadequate to address the needs, the government, being obliged to reduce its public expenditure, then recruited untrained teachers on two-year contracts. Thus, while teachers in Uganda as a whole come under the civil service payroll, salaries differ according to the level of training. An untrained teacher receives a monthly salary of 121 366 Uganda Shillings while a trained teacher has a salary that gradually increases from 200 000 Uganda Shillings per month in the first years to 229 181 Uganda Shillings ten years later (World Bank, 2007e). When the Primary Education Reform Program (PERP) was launched in 1993, primary school teachers with little or no training represented around 50% of the teaching force. They represented 32% of the teaching force in 2006. In Mozambique, in 2007, 44% of primary school teachers had received no pre-service training and are therefore considered as untrained (Mulkeen *et al.*, 2008).

Governments have sometimes had recourse to less-trained teachers even when an adequate number of students were available with the necessary qualifications for teaching. This contradiction can be explained simply by the fact that it was financially impossible for some governments to recruit teachers coming out of the national institutes of education. Zambia and Kenya are emblematic of this situation. Caught up in the trap of budget austerity and debt, and lacking the resources needed to hire more teachers and address the expansion of the education system, the Zambian government has not been in a position to hire enough teachers under standard conditions in recent years. Thus, although a considerable number of trained teachers are available, the government has recruited teachers who do not have the academic qualifications usually required and who earn 40% less on average than trained teachers (Education International, 2007). At present, the Zambian teaching force is made up of teachers who have received pre-service training and of untrained teachers, the latter representing 6.6%[36] of all primary school teachers in 2006 (World Bank, 2007f).

35 Initial Primary Teacher Education.

36 The low proportion of untrained teachers in Zambia is explained by the fact that most teachers initially recruited in this category have qualified as a result of in-service training.

1.2.2. The emergence of non-civil servant teachers in French-speaking Africa

Unlike most other countries where adjustments were based on the level of training, the former French colonies for the most part and a very few other countries such as Guinea-Bissau have had recourse to a new teacher category, non-civil servant teachers who are managed and paid by the government.

As indicated in Chapter 2, the fact that civil servant salaries were initially linked to those practised in Metropolitan France during the colonial period explains the high teacher salary levels in French-speaking countries compared to those in English-speaking countries at the time of independence. In spite of the considerable erosion in teacher salaries in French-speaking Africa since then, there was still a significant gap on relaunching the development of the education systems towards the end of the 1990's.

As they were unable to recruit additional civil servant teachers due to the high costs associated with this teacher category, and as they had to address the democratisation of education, these governments had to find a model more adapted to the needs but also to available public resources. These reforms, implemented under pressure from demand and from local initiatives, but also under pressure from technical and financial partners, gave rise to new teacher categories as of 1990-2000—non-civil servant teachers—who were paid significantly lower salaries than civil servant teachers.

Box 3.1: The example of Senegal: a pioneer in the reform of the recruitment of primary school teachers

Like many sub-Saharan African countries, starting in the early 1990's, Senegal was confronted with the problem of financing the development of its education system. In spite of a large share of the national budget being allocated to the education sector, the gross enrolment rate (GER) had been continually on the decline, falling from 58.1% in 1989 to 54% in 1994. The Senegalese government's financial incapacity to pay the salaries of the teaching staff needed for this expansion was the major barrier for the development of primary education at that time: in the early 1990's, the average salary for Senegalese primary school teachers represented 7.2 times the country's GDP per capita.

It was in this context, marked by financial difficulties and problems for developing the education system that the body of **Education Volunteers** came into being. This innovative initiative launched in 1995 aimed at providing a tangible response to a dual problem: that of unemployed qualified individuals and that of the shortage of primary school teachers. Upper secondary education students were called on to become "volunteer" teachers. Out of the 32 595 candidates who took the "mobilisation" test in July 1995, 1 200 volunteers were selected to benefit from three months training before leaving to teach in remote areas of the country[37]. The young volunteers thus accepted to teach in isolated communities for a period of two years, renewable only once, in exchange for a monthly scholarship of 50 000 FCFA on a 12 month basis.

The recruitment of these volunteers, far removed from the standards and criteria in force in the civil service, was a particularly controversial issue with the teaching profession. Considerable effort had then to be deployed to explain this policy to trade unions and parents in order to allow for its implementation. Finally, it enabled the authorities to give new impetus to education. Education Volunteers already represented 19% of all teachers by 1998 (UNESCO, 2000).

This initiative, which, in the beginning, aimed at supplying 1 200 education volunteers per annum over a period of four years, has lasted. Education Volunteers now benefit from career prospects in public education. Demands from the volunteers that were supported by the unions have thus given rise to a permanent status via the new category of **contract teachers**. After two years of activity, the volunteer teacher can indeed be recruited as a contract teacher (non-civil servant) by signing a contract with the government. Afterwards, if he/she passes the CEAP or CAP[38], the contract teacher can join the civil service, according to the recognised procedure, as a primary school teacher or a primary school teacher assistant. The new statutory framework offers contract teachers a level of salary that, while lower than civil servant teacher salary, is still higher than what was initially set for Education Volunteers. While the salary for volunteers represented only 1.9 times the country's GDP per capita in 2002, the level of salary for contract teachers is 3.4 times GDP per capita.

Since the category of Education Volunteers came into being, Teacher Training Schools (EFI) have trained around 25 000 volunteers over 13 cohorts. Projections indicate that contract and volunteer teachers will represent 56% of total teachers by 2010 (ME/ADEA, 2001); these categories already represented almost half of all teachers in primary schools by 2003. This policy is to be looked at in the light of the progress in schooling coverage in Senegal; the GER has risen from 54% in 1995 to 83% in 2006.

While Senegal was the first country to employ a new category of teachers in great numbers, comparable measures have been adopted in many sub-Saharan African countries. The emergence of alternative status categories has thus modified the make-up of the teaching profession throughout the continent. Recourse to non-civil servant teachers is nevertheless linked to specific national contexts. The policy for the recruitment of these new teachers is not at the same stage of development in each country and is implemented differently from one country to another. While in some countries, such as Niger and Guinea, the government has decided to recruit only contract teachers, other countries have had little or even no recourse to these non-civil servant teachers.

37 According to the Education Volunteer Project director, Ministry of National Education, Senegal.

38 CEAP: elementary teaching qualification, giving access to the rank of primary school teacher assistant; CAP: teaching qualification, giving access to the rank of primary school teacher.

Chapter 3

New teachers and progress in enrolments

In Niger, the status of non-civil servant teachers has changed since the reform on the recruitment of these teachers was adopted. Like Senegal, in the 1990's, the government of Niger's initial strategy was to recruit individuals who had recently qualified from tertiary education, under the form of a "civic service," in return for a salary set at about 40% less than that of civil servants (Mingat, 2004). Taking inspiration from practices initiated in neighbouring countries, Niger introduced the recruitment of a new category of teachers in 1998, "volunteers," whose salary corresponded to around one third of what civil servant teachers received.

What was originally presented as a temporary, ad hoc situation, has gradually changed the make-up of the teaching profession in Niger. This policy could not last as such, since it relied on external financing (World Bank), which was as a result volatile and uncertain over time, and did not offer any particular status to ensure sustainable employment. Further to negotiations between the unions and public authorities, an agreement was found that gave rise to a new category of teaching staff in 2003: contract teachers. Although not benefiting from civil servant status, this new category of teachers does have some of its advantages and receives a higher salary than the former "volunteers": 42 000 FCFA per month, i.e. 3.7 times GDP per capita (Mingat, 2004). Initially financed on a World Bank project, contract teacher salaries are now covered on the ordinary state budget.

The Niger government has recruited no further civil servant teachers in primary education since the programme introducing contract teachers was adopted. A similar situation is to be found in Guinea. This country has also recruited contract teachers in large numbers, the only category to be recruited since the reform was implemented in 1998. In Mali, although the government has had less recourse to contract teachers since 1992 than Niger and Guinea, this phenomenon has considerably blossomed since the end of the 1990's. The government of Mali has indicated a clear determination to employ contract teachers rather than civil servant teachers: in 2002, 5 800 contract teachers were recruited compared to a little over 200 civil servant teachers.

These new categories of teachers are not so present, and even completely absent, in other countries. This is the case in Mauritania where the level of civil servant salary was already the lowest of all French-speaking African countries (3.1 times GDP per capita in 2004), but also in Côte d'Ivoire. In the 1980's, teachers in Côte d'Ivoire were paid on a more favourable salary scale than that of other civil servants. The measures introduced starting in the year 2000 to limit this advantage and address budget constraints, were done away with in 2001, when teachers in Côte d'Ivoire returned to their privileged position on the civil service salary scale.

1.2.3. Assuming responsibility for community teachers: a response specific to French-speaking countries

While the emergence of teachers paid by parents in the 1990's can be said to have had a noteworthy impact on access to education for children until then excluded from the system, it did nevertheless raise questions in terms of equity. In countries like Cameroon, Congo, Madagascar and Chad where community teachers represent a high share of teaching staff, it is clear that the financing burden is transferred from the government to the communities and first and foremost to the pupils' parents who have to bear the additional costs of education. At a time when free access to primary school is promoted everywhere, many families, often in the most disadvantaged areas, are obliged to pay the teachers themselves. The way the government and families share responsibility here for the recruitment and financing of teachers goes against the concept of equity in access to school.

As limited leeway prevents them from recruiting more teachers on the usual criteria, some African governments have made the deliberate choice of covering all or part of community teachers' salary and, sometimes, of providing in-service training for these teachers. In addition to restoring the traditional role of the government in the provision of schooling, these measures also correspond to an objective of equity. Thus, in recent years, a number of African governments have set up subsidies for community teachers via the parent associations. This has been the case for example in Mali since 2001, in Madagascar since 2004 and in Benin since 2006.

In Central African Republic, community teachers receive a very low salary: 0.4 times GDP per capita compared to 1.1 GDP on average for the same category of teachers in the other African countries (CSR-CAR, 2007a). The national strategy for the education sector for 2008-2020 takes into account government responsibility for community teachers and an improvement of their situation. The Central African government does indeed envisage recruiting a category of "school masters" in the coming years. These primary school teachers must have passed the general certificate of lower secondary education (*Brevet*) and will receive two years of initial training, including one year in the classroom, after passing a selective examination. In this framework, it is anticipated that those individuals currently working as community teachers will also have access to the status of so called "school masters" after going through two six-week in-service training sessions followed by one year as a trainee. These school masters should receive a monthly salary of 60 000 FCFA, i.e. higher than that currently granted to community teachers by the parent associations. The government of Central Africa thus envisages taking over from the communities in financing and training community teachers but is keen for the communities to maintain their commitment towards the school. The school masters recruited amongst the community teachers, will be able to stay on in the schools where they were initially recruited. If they sign a contract with the government who will be fully responsible for their salary, the community who has entrusted them with a class should be involved in the contract and in the management of these teachers.

Chapter 3

New teachers and progress in enrolments

While taking over the responsibility for community teachers has still to be implemented in Central African Republic, similar measures have already been fairly widely introduced in Madagascar and Chad where, unlike many other French-speaking African countries, the governments do not officially recruit non-civil servant teachers but employ teachers initially paid by the parents.

In this respect, new teachers in Madagascar are mainly "FRAM"[39] teachers, recruited directly by parents via Parent Associations. They are omnipresent in the Malagasy teaching force: their numbers have more than doubled between 2000-2001 and 2003-2004 and have been continually on the increase over the years. They thus represented almost 50% of all teachers in 2005-2006, compared to only 18% in 2000-2001. At the outset, the communities were responsible for recruiting and paying this type of teachers. Even so, the Malagasy government introduced a system of subsidies for this category of teachers in 2004. In 2005-2006, 25 803 teachers, i.e. 92% of them, received a subsidy from the Ministry of National Education and Scientific Research (MENRS, 2007).

As far as Chad is concerned, this country is experimenting with a dual education system consisting in a public primary education system on the one hand and a system that is controlled and financed by local communities on the other. The public system, made up mostly of civil servant teachers, also has recourse to a fairly significant proportion of community teachers whose salary level is less than one third that of civil servant teachers (Mingat, 2004). This duality is also to be found in community schools with a large majority of community teachers this time. In the face of the overwhelming commitment by parents toward their children's schooling, the government of Chad organised a national seminar in the year 2000 on the promotion of community initiatives in education; this gave rise to a National Federation of Parent Associations (FENAPET). In the framework of this initiative, the government provides the Parent Associations with training on management and also finances the professional training of teachers recruited by those associations. A partnership agreement was signed between the government and FENAPET in 2001. Since then, the government has established a subsidy to pay community teachers via the Parent Associations. This means that every year the government subsidises at least 1 500 community teachers, on debt reduction initiative resources (HIPC) (CSR-Chad, 2005b). In 2001, this subsidy amounted to 25 000 FCFA per month, paid over 12 months, i.e. 1.7 times the country's GDP per capita.

39 "FRAM" comes from the name given to parent associations in Madagascar.

1.2.4. Much challenged reforms

Bringing in new categories of teachers, independent of the civil service teacher corps, has been the simplest way for many African countries to lower the salary costs of primary school teachers. Nevertheless, civil society stakeholders have often challenged this reform in spite of its importance in terms of attaining UPE. Many teacher unions, in the north and south alike, have expressed their reluctance vis-à-vis a policy that could jeopardise the quality of education by encouraging the recruitment of new teachers at lower salaries and levels of training: "Children cannot be enrolled in good conditions. School performance is closely connected to the level of teacher qualification. All this is favourable to the government withdrawal sought by the World Bank who, in order to justify its policies, publishes studies indicating that untrained teachers succeed better. Don't go too far" (De Ravignan, 2007).

The National Teacher Syndicate of Niger (SNEN) also denounces the impact on the quality of education and on the reconsideration of traditional teacher status and protests against the recruitment of contract teachers underway since 1998 to the detriment of civil servants: "Not replacing civil servant teachers is catastrophic. They alone, with their level of training, can supervise and support their young contract colleagues who have entered the education system with no, or hardly any, training. There are too many new teachers who do not have the required level and who are unable to handle their class" (De Ravignan, 2007).

While the coexistence of two categories of teachers with significantly different salary levels is contested by a fair number of stakeholders, efforts were undertaken at the Conference on non-civil servant teachers held in Bamako in November 2004 to confront the different points of view and build a consensus. However, discussions are tense and the consensus is fragile.

Chapter 3

New teachers and progress in enrolments

Box 3.2: Conclusions of the Bamako Conference on non-civil servant teachers, November 2004

The Bamako Conference, organised by the Association for the Development of Education in Africa (ADEA), World Bank, Education International and the Ministry of National Education of Mali, was the opportunity to bring together a large number of participants around the topic of non-civil servant teachers. The Ministers of Education and Finance, Union representatives and parent association representatives from 12 French-speaking African countries[40] as well as members of civil society, met to discuss the challenges concerning the recruitment and activity of these new teacher categories. While there was manifest opposition at the conference between the partisans of traditionally trained teachers on the one hand and those supporting temporary teachers, volunteer teachers and other new teacher categories on the other hand, the discussions made it possible to arrive at a series of recommendations and measures with a view to improving the working conditions of these teachers.

This resulted from all participants recognising the fact that these new teachers were recruited in a context of transition when the African governments were prevented from recruiting teachers on traditional criteria due to limited resources. The following recommendations were adopted with a view to professionalizing non-civil servant primary school teachers and improving their career prospects:

- Ensure that the level (*Brevet* or higher) and conditions of recruitment (selective tests) guarantee the standards pertaining to the primary school teacher profile.
- Provide at least six months of pre-service training followed by a professional development plan to include in-service training and teaching support of various types targeted on the needs in a classroom situation.
- Offer a contract of indefinite duration including career plans, provision for promotion, social welfare guarantees, rights and duties according to the legislation in force.
- Find an equilibrium salary that guarantees a decent livelihood and is compatible with the country's resources and the obligation of equity and thus of education for all.
- Manage the coexistence of the different teacher categories by standardising recruitment, pre-service training and in-service training in such a way as to gradually reduce the disparities while making allowance for derogatory measures to take contextual constraints into account.
- Structure and regulate the strategic planning of transition according to improvements in internal and external resources in order to reduce the salary gap between the different categories, taking rigorously into account the immensity of recruitment needs and financial sustainability in the framework of the achievement of universal and complete primary education for all children.
- Promote social recognition and merit of the teaching profession at both national and international levels.

It was recognised at the conference that additional resources and better allocation of these towards the education sector, particularly for primary education, would be necessary, in the same way as an increase in external aid, in order to implement these recommendations.

Source: Final communiqué of the Bamako Conference

In order to reconcile the expansion of primary education with strong budget constraints, many African countries have embarked on new policies of recruitment and remuneration. Without going into too many examples, these new policies are seen to adopt a different angle in English-speaking countries where the accent is on the recruitment of teachers with less training, and in French-speaking countries with the introduction of a category of non-civil servant teachers. The following section presents the current situation in terms of distribution of status categories resulting from these reforms and an analysis of their contribution to the expansion of schooling.

40 Benin, Burkina Faso, Cameroon, Chad, Congo, Guinea, Madagascar, Mali, Mauritania, Niger, Senegal and Togo.

2. Recruitment of new teachers in Africa: current situation and impact on enrolments

The restructuring of the teaching force was articulated around status categories in French-speaking countries and around the level of training in other countries, both strategies aiming at lowering average salary costs. In this section, we shall look at how recruitment has been implemented, the distribution of teachers per status category or per qualification and the corresponding salary. We shall then go on to study teachers' professional characteristics, their professional training and level of academic qualification. The third and last part of this section will focus on the impact of teacher diversification on enrolments.

2.1. Recruitment of new teachers: current situation

The status of teachers in the different African countries can generally be broken down into three categories: civil servants or assimilated (e.g. contract teachers in the Congo are considered as civil servants), non-civil servant teachers under contract with the government and community teachers. Non-civil servant teachers who are under contract with the government are managed and paid directly by the government and are called, depending upon the country, "contract teachers," "temporary teachers," or "volunteers." Community teachers are teachers recruited and paid by the parents and/or the local authority, and are subsidised by the government in some countries.

While recruitment policies have some features in common from one country to another, the distribution of teachers according to status and level of salary (in GDP per capita) varies widely as indicated by the data for 14 African countries (of which 13 French-speaking and 1 Portuguese-speaking country) presented in table 3.1. On average in the 14 countries presented, 51% of primary school teachers are civil servants and 26% are non-civil servant teachers. The remaining 23% are community teachers. The average salary for civil servant teachers is 6 times the GDP per capita compared to 3.1 times GDP per capita for non-civil servant teachers and once GDP per capita for community teachers.

Chapter 3

New teachers and progress in enrolments

Table 3.1: Distribution (in %) of primary school teachers according to status and level of salary per status in 14 African countries

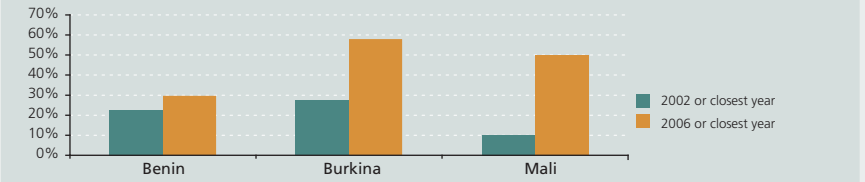
Country	Distribution per status in %			Salary per status in GDP per capita		
	Civil servants	Non-civil servant teachers	Community teachers	Civil servants	Non-civil servant teachers	Community teachers
Benin (2006)	45	19	36*	6.3	1.9	1.2
Burkina Faso (2006)	42	58	0	6.6	4.2	-
Burundi (2004)	93	7	0	6.9	4.7	-
Cameroon (2002)	35	20	45	5.3	1.4	0.8
CAR (2005)	60	0	40	6.8	-	0.4
Chad (2003)	38	0	62*	7.2	-	1.7
Congo (2005)	55	14	31	2.0	0.9	0.6
Guinea (2003)	43	51	6	3.4	1.9	1.2
Guinea-Bissau (2006)	71	29	NA	4.7	3.4	NA
Madagascar (2006)	49	0	51**	4.8	-	0.9
Mali (2004)	35	35	30*	7.5	4.8	1.0
Niger (2003)	46	50	4	8.9	3.5	NA
Senegal (2004)	44	56	NA	7.5	2.5	NA
Togo (2007)	49	15	36	6.6	4.5	1.3
Average	**51**	**26**	**23**	**6.0**	**3.1**	**1.0**

Source: CSRs, financial simulation models for different countries, authors' calculations
** Community teachers are subsidized by the government.*
*** 17% of the 51% community teachers are subsidised by the government.*

These general situations conceal considerable disparities: while representing 93% of teachers in Burundi, civil servants only constitute 35% of teaching staff in Cameroon and Mali. In Burkina Faso, Niger and Guinea, there is a majority of non-civil servant teachers, while community teachers are virtually nonexistent. So it appears interesting to observe the evolution of teacher recruitment in terms of the different status categories taking a country where non-civil servant teachers are now in the majority and where there are no more community teachers (Burkina Faso, for example) and a country where non-civil servant teachers are still a minority but where there is a high proportion of community teachers (Benin, for example). Mali, with almost equivalent proportions of the three categories of teachers, is also featured on graph 3.1, which shows the progression of the share of non-civil servant teachers managed directly by the government compared to the number of total teachers managed by the government (i.e. excluding community teachers) between 2002 and 2006 (or closest years[41]).

41 Between 2000 and 2004 for Mali.

Graph 3.1: Progression of the proportion of non-civil servant teachers compared to the total number of teachers managed and paid by the government in 3 French-speaking African countries between 2002 and 2006 (or closest years)



Source: CSRs and authors' calculations

The three countries presented in graph 3.1 have chosen to recruit primarily non-civil servant teachers over the past few years, in varying proportions. Thus, Mali and Burkina Faso have essentially recruited non-civil servant teachers resulting in an increase in the proportion of these teachers from 10 to 50% in Mali and from 27 to 58% in Burkina Faso in recent years. Benin has chosen to continue recruiting civil servant teachers during this period and so the proportion of non-civil servant teachers has increased to a lesser extent, from 23 to 30%. On average, the proportion of non-civil service teachers in the three countries has risen from 20 to 46% in four years, reflecting the political determination, variable depending on the country, to reduce average teacher salary costs and be able to face up to the growing demand for schooling.

Table 3.2 shows the distribution between teachers who have followed standard professional training and those who have benefited from very short training or no training at all[42] and corresponding salaries for seven African countries (five English-speaking, one Portuguese-speaking and one French-speaking) who have not introduced a new non-civil servant teacher status.

42 They are called untrained here insofar as they have not benefited from standard professional teacher training.

Table 3.2: Distribution (in %) of primary school teachers between trained teachers and hardly trained or untrained teachers and salary level in 7 African countries

Country	Distribution in %		Distribution in GDP per capita	
	Trained teachers	Untrained teachers	Trained teachers	Untrained teachers
Ethiopia (2002)	97	3	6.9	4.8
Gambia, The (2006)	68	32	2.7*	1
Lesotho (2006)	60	40	6.3	1.5
Mozambique (2001)	48	52	4.5	2.8
Rwanda (2003)	85	15	3.9	3.5
Sierra Leone (2004)	93	7	4.3	2.5
Uganda (2006)	68	32	5.4**	3.1
Average	**71**	**29**	**4.9**	**2.8**

Source: CSRs, financial simulation models for different countries, World Bank and authors' calculations
** Trained teachers are paid between 2.4 and 3.0 times GDP per capita in The Gambia. The value indicated here is the simple mean of these two values.*
*** Same remark for trained teachers in Uganda who are paid between 5.0 and 5.8 times GDP per capita.*

Chapter 3

New teachers and progress in enrolments

On average for the 7 countries presented, 71% of primary school teachers are trained teachers and 29% are untrained. The average salary for trained teachers is 4.9 times GDP per capita compared to 2.8 times GDP per capita for untrained teachers. Once again, these general characteristics conceal considerable disparities. Trained teachers represent 97% of all teachers in Ethiopia compared to only 48% in Mozambique. Just as for status categories in French-speaking countries, recruitment policies do nevertheless greatly vary in this respect from country to country.

2.2. General profile of teachers on the African continent: a variety of levels of recruitment and professional training

Until the 1990's, virtually all primary school teachers on the African continent had qualified from standard training institutes and consequently had a similar level of academic qualifications. However, later on, in view of the massive needs for new teachers, some governments reformed teacher recruitment and training. While the emergence of new teachers clearly indicates the determination and the need to adequately address the massification and democratisation of education, the terminology used covers a teaching profession with many and varied status categories, academic qualifications and levels of professional training. We shall explore here the academic level and professional training of teachers, two key aspects in the ongoing renewal of the African teaching profession.

In order to examine this topic, we shall refer to data available on teachers within the framework of learning assessment analyses conducted by the CONFEMEN Programme for the Analysis of Education Systems (PASEC) or Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ). These data, from diagnostic or thematic evaluations focused on pupil learning, may differ from those that could have been obtained from national teacher census reports.

2.2.1. Teachers' academic qualifications

On this basis and regarding academic qualifications, the vast majority of primary school teachers in the countries concerned by these two programmes are seen to have at least passed the general certificate of lower secondary education (*Brevet*) (cf. table 3.3): 78% of teachers in Mali, 53% of teachers in Guinea, 50% in Togo, 79% in Kenya and 47% in Botswana. Mauritania is different with a relatively high academic level: 62% of teachers in the PASEC sample have the general certificate of

upper secondary education (*Baccalauréat*) or more. PASEC and SACMEQ data do however reveal that the highest percentage of pupils whose teacher has only been through primary education are to be found in Lesotho (51.1%), South Africa (30.2%), Togo (18.4%), Namibia (17.7%) and Tanzania (16.5%). As for Malawi, Kenya and Guinea, they have the lowest percentage of pupils with a teacher who has only benefited from primary education, 0.8%, 0.5% and 0.6% respectively.

Table 3.3: Academic level of teachers in 6 French-speaking countries and 8 English-speaking countries (as a %) based on samples

Country	Lower secondary level	General certificate of lower secondary education (*brevet*)	Upper secondary level	General certificate of upper secondary education (*baccalauréat*)
Chad	13.1	17.6	38.7	30.6
Guinea	**0.6**	5	**52.8**	41.5
Mali	3	8.1	**78.2**	10.7
Mauritania	5.1	31	0.8	**62.3**
Niger	3.2	35.6	37.2	24.1
Togo	**18.4**	14.8	**49.8**	17
PASEC average*	**7.2**	**18.7**	**42.9**	**31**
Botswana	8.2	**47.4**	30.1	14.2
Kenya	**0.5**	2.3	**78.4**	18.9
Lesotho	**51.1**	11.7	15.5	21.8
Malawi	**0.8**	35.7	63.4	0.2
Namibia	**17.7**	8.9	46.1	29.5
South Africa	**30.2**	3.6	18.9	47.3
Tanzania	**16.5**	79.4	1.9	2.3
Uganda	2.4	1.1	59	37.7
Zambia	10.2	6	71.6	12.2
SACMEQ average**	**10.8**	**16.6**	**45.3**	**27.3**

Source: Bonnet (2007)
** PASEC studies were conducted between 2001 and 2004. For Mali, Niger, Togo and Guinea: thematic evaluations on a sample of teachers. For Chad and Mauritania: diagnostic assessments on a sample of pupils.*
*** SACMEQ evaluations are dated 2000-2001.*

Nevertheless, over and above this overall vision, requirements for joining the teaching profession vary, not only from one country to another, but also within the same country according to teacher status (cf. table 3.4). Community teachers have very different academic profiles from one country to another and within the same country. No minimum qualifications are required as a general rule to become a community teacher. While in Mali, the level of recruitment for these teachers is generally below the basic education certificate, in Guinea community teachers have a higher academic standard on average: 40% have the general certificate of lower secondary education, 30% the general certificate of upper secondary education, 10% a professional diploma and 20% have no qualifications (CIEP, 2007). This is also the case in Madagascar where the vast majority of community teachers have the general certificate of lower secondary education.

Chapter 3

New teachers and progress in enrolments

While community teachers have very different levels of qualification, the academic level of non-civil servant teachers financed by the government is comparable to, and often higher than, that of civil servant teachers. This is the case in Niger, Guinea and Mali. In Niger, the government recruits contract teachers from those coming out of teacher training institutes (individuals qualifying from these schools are automatically admitted) and professional training, and holders of the general certificate of lower or upper secondary education. These teachers have therefore similar academic levels to their civil servant counterparts. Contract teachers in Guinea must also have at least the general certificate of upper secondary education; this used to be required in order to join the civil service. However, according to PASEC data, the academic level of contract teachers appears higher on average than that of civil servants in Guinea (Bonnet, 2007). Data available for Mali leads to the same conclusions.

Table 3.4: Academic level of teachers according to status in 5 French-speaking countries

Country	Categories/designations	Academic level required
Congo	Civil servants	*Baccalauréat*
	Contract teachers	*Baccalauréat*
	Volunteers	*BEMG* or *Baccalauréat* or equivalent diploma
Guinea	Civil servants*	*Baccalauréat**
	Contract teachers	*Baccalauréat*
Niger	Civil servants*	*Brevet* or *Baccalauréat**
	Contract teachers	*Brevet* or *Baccalauréat*
Senegal	Civil servants	*Brevet* or *Baccalauréat***
	Education volunteers	*Brevet*
	Contract teachers	*Brevet* + 2 years voluntary service
Togo	Civil servants	*Baccalauréat*
	Auxiliaries	*Baccalauréat*

Source: CSRs, PASEC, and Senegalese Ministry of Education
**Niger and Guinea have recruited no further civil servants since 1998.*
*** Primary school teachers must have the* Baccalauréat, *teacher assistants must have the* Brevet.

2.2.2. Different kinds of professional training according to status

While academic level does not seem to be a determining factor in distinguishing between the different categories of teachers, the type of professional training does on the other hand vary significantly from one status category to another (cf. table 3.5). Not all teachers, other than civil servants or assimilated, have benefited from previous professional training. This is generally the case of community teachers, especially in Chad, Guinea, Mali and Togo. This is also the case for Djibouti where non-civil servant teachers were recruited by the Ministry of National Education with no previous training, unlike their civil servant counterparts (CIEP, 2007), and in Togo where auxiliaries (50% of all primary school teachers) were directly recruited by the government after their studies.

When non-civil servant teachers have had pre-service training, this differs from one country to another and can sometimes be very short. The recruitment of non-civil servant teachers has indeed often gone hand in hand with the introduction of accelerated pre-service training, shorter than the training delivered to civil servant teachers. In Mali, while 6.3% of contract teachers in the PASEC sample have received no training, most of them (72.5%) have followed a training course lasting from one to three months. In fact, applicants for contract teaching positions who have no professional qualifications benefit from a 90-day training course. In Senegal, Education Volunteers benefit from six months of theoretical training before being assigned to a class.

While some countries have opted for accelerated training, others have chosen to provide training of one year or more for contract teachers. In Guinea, since the reform of pre-service training in 1998, contract teachers currently in teaching jobs have received training of 18 months (9 months of practical training in an institute punctuated by 3 periods of work experience and 9 months of practice with responsibility for a class) or 15 months (3 months of theory in an institute, 9 months of practice with responsibility for a class then back to the institute for 3 months of theoretical training). Thus, 99.4% of contract teachers in the PASEC sample in Guinea have benefited from more than one year of professional training. In Niger, a large share of contract teachers have received the same initial training as their civil servant counterparts, that is one year training or more. Nevertheless, it is important to note that this training was not originally provided to contract teachers and that it is now part of an overall trend with a view to providing contract teachers with professional training.

Table 3.5: Duration of initial professional training according to status on the basis of PASEC samples (in %)

Country	Duration of training*	Civil servants	Non-civil servant and community teachers	Teachers as a whole
Guinea	No training	0.8	0.0	0.3
	1 year or more	98.5	99.4	99
	Other	0.8	0.6	0.7
Mali	No training	0	6.3	3.3
	< 1 month	0	7.7	4.1
	1-3 months	0	72.5	38
	1 year or more	100	13.4	54.6
Mauritania	No training	4.3	55.6	7.5
	< 1 month	1.4	11.1	2
	1-3 months	15.7	7.4	15.2
	3-6 months	3.4	3.7	3.4
	6-9 months	44.2	7.4	42.0
	1 year or more	30.9	14.8	29.9
Niger	No training	3.8	19.8	9.8
	< 1 month	0.0	17.7	6.7
	1-3 months	0.0	19.8	7.5
	1 year or more	96.2	42.7	76
Chad	No training	0	74	42.1
	< 1 month	0	4.9	2.8
	1-3 months	1.1	9.8	6
	3-6 months	0	1.6	0.9
	1 year or more	98.9	9.8	48.1
Togo	No training	31.1	82.4	50.9
	1-3 months	51.1	4.7	33.2
	1 year or more	17.8	12.9	15.9

Source: Bonnet (2007), PASEC data
Note: The PASEC studies were conducted between 2001 and 2004.
** This means the total duration of training, including theoretical lessons and practical training in the classroom. Thus, in Guinea the first year of teacher practice is still considered as training and the teacher benefits from support.*

When the analysis is extended to all countries on the African continent, the length of professional training for the different categories of teachers as a whole appears longer on average in the SACMEQ countries. According to Bonnet (2007), a little over 90% of pupils in the sample analysed on SACMEQ countries as a whole have a teacher who has benefited from more than one year training, compared to only 54% for the PASEC countries. This observation is to be looked at alongside the noteworthy differences between French-speaking and non-French-speaking countries in the implementation of reforms concerning the teaching profession.

In English and Portuguese-speaking countries, alongside teachers with the level of qualifications required by the Ministry of Education for teaching, there are a fair number of teachers without that level (cf. table 3.6). In Eritrea, Lesotho, The Gambia and Malawi, governments have recruited a second category of teachers in recent years. While the government of Eritrea provides a three-month introductory training course for these teachers, the majority of teachers in this category in other countries have received no initial training. Nevertheless, distance training is sometimes implemented to compensate for this failing. This enables teachers without the required diplomas to follow theoretical and practical training while working. This also enables them to obtain, in some cases, a diploma equivalent to that obtained by their counterparts in traditional training institutes and, as a result, to make progress in terms of salary.

Table 3.6: Duration of initial professional training in 10 non-French-speaking countries based on SACMEQ samples (in %)

Country	Duration of initial training					
	No training	< 1 year	1 year	2 years	3 years	> 3 years
Botswana	4.8	1.3	0	74.4	10.5	9.0
Kenya	1.3	0.8	0.5	87.3	7.9	2.1
Lesotho	10	3.5	4.2	8.7	44.4	29.2
Malawi	6.3	20.9	22.4	41.0	6.5	3.0
Mozambique	21.9	14.2	3.3	23.2	31.0	6.4
Namibia	3.5	2.3	4.3	26.3	44.9	18.8
South Africa	0.5	0.0	2.8	15.8	42.4	38.5
Tanzania	0.0	1.3	5.1	67.9	23.2	2.5
Uganda	4.1	4.4	3.4	56.8	12.7	18.6
Zambia	2.3	0.8	1.8	91.6	1.3	2.3
SACMEQ	4.7	4.7	5.2	**48.9**	22.7	13.9

Source: Bonnet (2007)
Note: The SACMEQ evaluations were conducted in 2000-2001.

The governments of Uganda, Eritrea, Lesotho and Zambia have set up this type of professional in-service training. In Uganda, where many untrained teachers were recruited as early as 1997, there has been a continual increase in the share of trained teachers in recent years thanks to the introduction of training for untrained teachers while working (cf. graph 3.2). This training is spread over a period of three years for a qualification equivalent to that of teachers coming out of national training institutes. 1 005 teachers have benefited from this training in 2003-2004 and this number has risen to 4 173 by 2005-2006. Eritrea is in a similar situation. The proportion of trained teachers has increased rapidly over the last few years. It is estimated besides that all unqualified or under-qualified teachers should be trained in the near future (World Bank, 2007a). In 2007, Zambia also brought in this type of

training, which is intended for community teachers. It enables untrained teachers in community schools to benefit from distance training while continuing to teach. There seems to be a clear interest for this training on the part of teachers. The initiative aims at improving teacher retention in community schools. Nevertheless, the sustainability of this initiative, based on external financing (USAID) is questionable.

Graph 3.2: Progress in the proportion of trained primary school teachers in Uganda (%), 2003-2006

Source: World Bank (2007e)

These initiatives as implemented in some English-speaking countries seem to indicate a direction to follow, which could be extended to all countries on the continent, particularly those with a high number of community teachers. Providing in-service training to community teachers does indeed favour greater equity within the education systems. While equity generally concerns the financial aspects through the costs borne by the families, the issue of equity is also raised in terms of quality of education delivered and, as a result, of teacher training.

Some French-speaking countries, such as Chad and Madagascar have taken advantage of local initiatives by including community teachers in an overall national system and by providing them with continuous training. The Malagasy government in fact envisages providing continuous training over a period of between two and four years to ensure certification of the 30 600 FRAM teachers present in their teaching workforce (MENRS, 2007). On a parallel to this initiative, it also plans to recruit 2 000 new FRAM teachers per year and to integrate them in this intensive continuous training process. Nevertheless, these initiatives remain limited and it would be worth extending them to the scale of the continent in order to ensure training for all teachers. Overall, the trend observed in terms of teacher training is clearly positive insofar as training devices are gradually being introduced with the aim of providing professional training to each teacher, whatever his/her status.

2.3. Impact of the recruitment of new teachers[43] on enrolments

The introduction of new teacher status categories and the recruitment of less-trained teachers have most probably had a noteworthy influence on primary school enrolments in the countries that have developed these policies. The impact of this diversification of the teaching profession is nevertheless more or less significant according to the country, depending on the weight of these new teacher categories and of their salary levels. Table 3.7 indicates an "enrolment benefit equivalent," in

43 "New teachers" here means non-civil servant teachers managed by the government, community teachers subsidised by the government and also less qualified teachers recruited in English-speaking countries.

terms of enrolments that can be associated with the recruitment of these new teachers, for 20 countries. This enrolment "benefit" was obtained for a base year for which precise information on teacher payroll is available, by comparing the actual number of pupils enrolled to those that could have been enrolled if the payroll had been exclusively devoted to the recruitment of teachers with the most favourable status and salary (i.e. civil servants in French-speaking countries and qualified teachers in English-speaking countries). The purpose of this calculation is of course only to give an order of magnitude of the impact of the reforms undertaken by the countries since, over a longer period, a deterioration in pupil-teacher ratios or a reduction in expenditure excluding teacher salary would have enabled an increase in enrolments even if the most favourable conditions of recruitment had been maintained. Graph 3.3 indicates the "benefit" per country in relative value.

Table 3.7: Estimation of annual enrolment "benefit" resulting from diversification of recruitment in 20 African countries

Country	Actual enrolments	Estimated enrolments if the most favourable recruitment conditions had been maintained	"Enrolment benefit equivalent"
Benin (2006)	1 356 818	856 984	499 834
Burkina Faso (2006)	1 590 371	1 293 214	297 157
Burundi (2004)	968 488	962 381	6 107
Cameroon (2002)	2 723 371	2 419 654	303 717
Chad (2003)	1 139 042	1 028 905	110 137
Congo (2005)	611 679	580 561	31 118
Ethiopia (2002)	5 725 954	5 676 604	49 350
Gambia, The (2006)	182 055	146 028	36 027
Guinea (2003)	1 163 126	947 326	215 800
Guinea-Bissau (2006)	269 287	256 068	13 219
Lesotho (2006)	422 268	294 917	127 351
Madagascar (2006)	3 698 906	2 462 667	1 236 239
Mali (2004)	1 505 903	1 335 228	170 675
Mozambique (2001)	2 555 975	1 267 645	1 288 330
Niger (2003)	857 592	607 497	250 095
Rwanda (2003)	1 636 563	1 611 597	24 966
Senegal (2004)	1 382 749	924 170	458 579
Sierra Leone (2004)	1 134 815	1 102 999	31 816
Togo (2007)	1 208 605	1 077 604	131 001
Uganda (2006)	7 224 761	6 392 233	832 528
Total	**37 358 328**	**31 244 282**	**6 114 046**

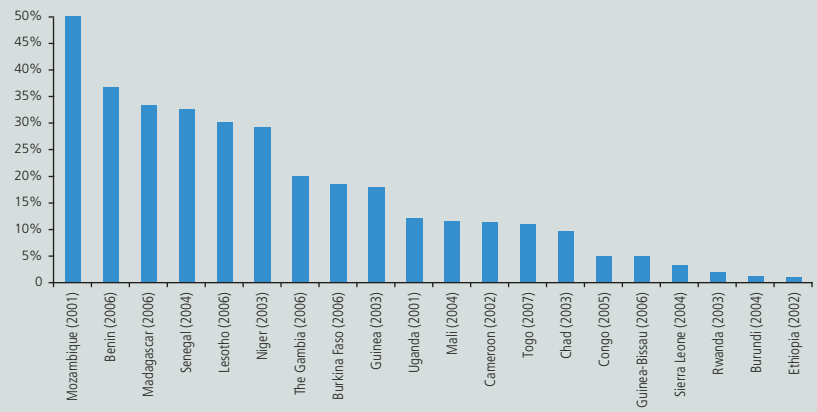
Source: CSRs, financial simulation models for different countries, World Bank and authors' calculations

Chapter 3

New teachers and progress in enrolments

On average, for the 20 countries as a whole, changes in the structure of teacher recruitments are estimated to have resulted in an increase in enrolments of 16%, i.e. over six million children. Mozambique, Benin, Madagascar, Senegal, Lesotho and Niger are the countries with the most significant "enrolment benefit equivalent": between 29 and 50% of potential increase in enrolments as a result of recruiting or subsidising these new teachers. Nevertheless, potential benefits are low for countries such as Ethiopia, Burundi, Rwanda, Sierra Leone, Guinea-Bissau and Congo.

Graph 3.3: Estimation of increase in enrolments (in %) due to the recruitment of non-civil servant teachers paid by the government, for 21 African countries



Source: CSRs, financial simulation models for different countries, World Bank and authors' calculations

To conclude, the goal of universal primary education poses serious challenges for countries in Africa. Amongst these, one of the most delicate is the recruitment of a sufficient number of teachers. Over the last ten years, many African countries have set up new policies designed to bring down teacher salary costs by lowering the requirements in terms of pre-service training and/or by developing programmes for recruiting and managing teachers outside the civil service.

These policies, as analysed throughout this chapter, have resulted in an in-depth modification of the make-up and structure of the teaching profession to the extent that these new teachers are now in the majority in many countries. The current situation is characterised by the coexistence of a variety of status categories and levels of training in each country. This heterogeneity and the variety of salary situations have enabled considerable progress in the expansion of primary education. These policies are questioned today and are potentially unstable.

One of the principal criticisms is to do with the quality of education delivered. Does the massive recruitment of contract teachers signify a deliberate trade-off in favour of enrolling the greatest number of children to the detriment of educational quality? This will be the subject of the following chapter, which will explore the relationship between teacher characteristics and the quality of education.

j'ai faim
aim = ain = ein
Ali et son copain vont
Sidi
est animé
train entre en gare. Il
chaud, je prends
la ceinture

The previous chapters focused on the considerable challenges and constraints weighing on the education systems, not least that of achieving universal primary education. Now, the recruitment of teachers in sufficient numbers raises the equally important issue of their capacity to provide quality education. In this respect, concerns are justified in that performance in

Chapter 4

Which teachers for what kind of learning?

terms of quality of learning leaves much to be desired on the African continent. While situations vary from country to country, those countries considered to perform the best, such as Morocco, Tunisia and even South Africa, are seen to be at the bottom of international assessments and very far from the international average (UNESCO-BREDA, 2007).

Chapter 4

Which teachers for what kind of learning?

Intuitively, the teacher appears to play a predominant role in that he/she is at the epicentre of the school learning process. In addition, quality education is often associated with specific teacher characteristics. Thus, for many people, quality education corresponds to teachers having a good academic level, a solid vocational training and a comfortable salary, preferably with civil service status. Naturally, these factors are to be taken into account but are not a measure of what pupils have learnt, which is the ultimate goal of education and so to be considered as the principal reference. In addition, the exact meaning of a good academic level, a solid vocational training, etc. needs to be defined. As a result, the characteristics of teachers cannot and must not be confused with the quality of learning. Research work on teachers aims precisely at indicating to what extent each of these characteristics has an influence on pupil learning achievements (section 4.2).

Besides, even from the teaching side alone, these characteristics are not the only factors coming into play. Indeed, can a properly trained teacher be expected to perform well if he/she is completely demotivated? In the same way, can a teacher obtain good results with pupils when he/she has to go away for several days every month in order to receive his/her salary payment? It is clear that some situations are complex and that requirements are not always fulfilled for ensuring quality learning. As a result, there are many parameters to be taken into account in striving to better comprehend the learning process and the role of the teacher in this process. These analyses bring to light the importance of some management issues (section 4.3).

1. Observable teacher characteristics and school learning achievements

The connection between teacher characteristics and school achievements is often the subject of clear-cut opinions on the part of the main stakeholders in education systems. However, the literature on this topic is definitely less conclusive than commonly circulating opinions. In spite of the prevalence of studies in developed countries (research in the USA by far dominates existing literature), research studies in the African context are becoming much more common now and enable interesting comparisons between different world regions. That said, it is important to have some criteria of appreciation as to the quality of the studies to avoid giving too much credit to those where methodology is overly weak (Bernard, 2007). We have thus made a reasoned choice here rather than an exhaustive review of existing studies.

1.1. What is the appropriate academic level for primary school teachers in Africa?

One of the difficulties in answering this question comes from the fact that a variety of academic levels are necessary in order to make comparisons. While this is the case in the African education systems, where it is not unusual to see teachers with only a primary school completion certificate side by side with teachers who have graduated from university (cf. Chapter 3, section 2.2.1), it is much less so in developed countries where virtually all teachers have graduated from tertiary education. This situation sometimes serves as an example in favour of a higher academic level: if countries that perform best use teachers coming out of university, why shouldn't Africa do likewise? This is not the best way of tackling the problem since it ignores the extremely different contexts and above all does not ask the right question, which should be: do pupils in African schools learn better when their teacher is a university graduate? If the answer is positive, then this is an argument in favour of recruiting graduate teachers. This must of course be counterbalanced by other arguments, including the availability of graduates in sufficient numbers and their cost. If the answer is negative, then the most appropriate academic level for primary school teachers still has to be identified.

We are to start with the situation in developed countries as seen through the results of two major studies conducted in the USA. After all, questions on the ideal academic level of teachers are common to all countries with the same idea of competition regarding teacher qualifications[44].

44 France is a good illustration of this with the recent decision to implement a system requiring a Master's degree to become a primary school teacher.

Chapter 4

Which teachers for what kind of learning?

In the first study, Rivkin, Hanushek and Kain (2005) use an extremely rich database collected by the Texas School Project of the University of Texas in Dallas. The Texas Assessment of Academic Skills (TAAS) has been administered each year since 1993 to pupils in grade 3 through grade 8. Data cover all pupils registered in Texan public schools. The authors have used data for three cohorts, each including over 200 000 pupils in around 3 000 public primary schools (elementary schools) and lower secondary schools (middle schools). The scale of these enrolments leads to much higher precision than the limited sample surveys generally available. The authors note that teachers with a Master's degree (five years after upper secondary completion) do not appear to perform better than their colleagues who have a lower academic level. In the second study, Krueger (1999) uses the STAR (Tennessee Student/Teacher Achievement Ratio experiment) project data and attempts to assess the impact of class size on pupil learning. In all, 11 600 children were involved in the experiment for only 80 schools. While the purpose of this study is about class size, the estimations given also provide interesting results as to teacher characteristics. On this point, Krueger concurs overall with Rivkin *et al*'s conclusions (2005): he does not observe any significant effect from the teacher having a Master's degree. These two studies concur with the observations of most research on the subject, which show that a higher university qualification does not automatically translate into better pupil learning achievements. This is a very interesting result in that it demonstrates that the rise in the academic level of teachers in developed countries does not necessarily correspond to criteria of effective teaching.

Nevertheless, this initial observation does not give an indication of what is observed in the African context where academic levels are extremely heterogeneous. It is therefore essential to refer to studies conducted in this context. However, the results observed are very clear: they reveal that the impact of academic education on school learning achievements is moderate, or even nonexistent (Mingat and Suchaut, 2000; Michaelowa and Wechtler, 2006). This does not mean that teachers' academic education is not of use, but rather that the academic levels of teachers in the education systems—generally ranging from lower secondary to tertiary education—make very little difference finally to pupil learning achievements. Based on data from the CONFEMEN Programme for the Analysis of Education Systems (PASEC) for nine French-speaking countries[45], Bernard, Tiyab and Vianou (2004) show that "while the BEPC[46] academic level appears to be a minimum threshold, it emerges very clearly that beyond that level, the influence of the teachers' academic level on pupil learning in primary education is moderate." It is nevertheless important to avoid making hasty generalisations, since, in some rare cases, it was seen that the *Baccalauréat* level could be the most appropriate. Thus, in Mauritania, different studies (PASEC, 2006; Jarousse and Suchaut, 2001) have demonstrated that 4th and 5th grade primary school pupils who have teachers with the *Baccalauréat* made more progress than those with teachers with a lower or higher academic level. However, this result is not valid in grade 2. It is therefore important to take national contexts into account even when fairly clear trends are seen to emerge.

45 Burkina Faso, Cameroon, Côte d'Ivoire, Guinea, Madagascar, Mali, Niger, Senegal and Togo.

46 Exam at the end of lower secondary education.

Thus, to address the question raised in the introduction to this section, studies do not confirm that teachers who have graduated from university are more efficient than teachers with secondary school level. On the contrary, in many countries, upper secondary education proves the most relevant. This result, which may be cause for surprise and which has sparked off a great deal of reaction over the past few years, must be explored further. It is true that a large number of studies are now available and that the accumulation of results makes the resulting trends relatively reliable. Even so, experience shows that the results are not always well accepted, probably because they are counter-intuitive. Different aspects must be taken into account in order to better understand them.

The first is psychological and concerns teacher motivation, which is quite clearly a determining factor. The more qualified the individual, the higher are his/her professional and social aspirations. It can thus be anticipated that a tertiary education graduate may have other aspirations than to become a primary school teacher. This is what Michaelowa's work (2002) tends to bring to light. The author demonstrates, in five French-speaking African countries, that teachers who have the *Baccalauréat* or who are university graduates are distinctly less inclined to declare that they would choose the job of primary school teacher if they had a choice in the matter, the impact of the other characteristics being controlled elsewhere. Once again, it is important to avoid a distorted view since this can in no case lead to the conclusion that all graduate teachers are demotivated. Michaelowa's results simply show that many of them are not satisfied with their situation as teachers. This dissatisfaction may be a source of discouragement for some, which could partly explain the previous results. This is an important aspect to be taken into consideration since a teacher recruitment policy for *Baccalauréat* holders or graduates could, in some contexts, have unexpected negative consequences in terms of school learning. It is easily understandable that someone who is feeling highly discouraged will not be very efficient in his/her work even though he/she is qualified.

Chapter 4

Which teachers for what kind of learning?

A second dimension to be taken into consideration is the contribution of a university education for the profession of primary school teacher. A university curriculum usually corresponds to a specialisation in a given subject, and there is not really an obvious link between a specialisation in law, economy or the humanities, etc. and the communication of basic knowledge to children in primary school. Indeed, at this level of education, the teacher has to be polyvalent as he/she teaches all the subjects on the curriculum; the difficulty of his/her task is not to do with the complexity of the knowledge to be communicated, since this is elementary, but rather with the complexity of teaching children who are at the beginning of their schooling. It can therefore be imagined that a university graduate has no systematic comparative advantage compared to a secondary school leaver. Thus, the fact of being a specialist of 19th century authors, for example, does not automatically qualify someone to teach reading, writing and counting to primary school children. The pedagogical aspect takes precedence over the academic level for basic education; this is less true for upper secondary education. Naturally, a university degree reveals knowledge and capabilities that indicate an individual's potential, but it is not in itself determining.

One should not go to the opposite extreme by saying that just anyone is capable of teaching. The results presented demonstrate that there is a minimum academic level required for teaching in primary school and that this corresponds to 10 years of education. It is obvious that someone who does not master the basic knowledge to be taught in primary school cannot be a good teacher. It is precisely the fact that there are people in the education systems whose academic level is clearly insufficient that worries some educational stakeholders. This phenomenon has been studied by the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) by administering reading[47] and maths tests to teachers in their survey samples in 12 Southern African countries (cf. table 4.1). Eight levels were identified by SACMEQ; the two highest levels were considered as satisfactory for teaching. A lower level raises serious questions as to the command of the subject.

In all countries, on average the large majority of teachers are seen to be at level 8 (65%) or level 7 (28.1%) in English. Also, around 7% of teachers in these countries are seen to be below these levels and so do not have an adequate level of knowledge for teaching. There are however considerable differences from one country to another. In Kenya or the Seychelles, around 94% of teachers are at level 8 compared to 19.1% in Zanzibar. In Uganda and Zanzibar, over 20% of teachers do not have the required reading level for teaching while the proportion is below 1% in the Seychelles.

Table 4.1: Percentage of teachers per level of skills in English

Country	% of teachers with a satisfactory level			% of teachers with an unsatisfactory level
	Level 7	Level 8	Total	
Botswana	17.5	82	99.5	0.5
Kenya	6.4	93.5	99.9	0.1
Lesotho	36.3	59.8	96.1	3.9
Malawi	35.9	58.4	94.3	5.7
Mozambique	37.1	52	89.1	10.9
Namibia	34.1	58.8	92.9	7.1
Seychelles	5.8	94.2	100	0
Swaziland	20.5	76	96.5	3.5
Tanzania	51.1	46.1	97.2	2.8
Uganda	21.9	57.1	79	21
Zambia	15.7	82.4	98.1	1.9
Zanzibar	54.4	19.1	73.5	26.5
SACMEQ II	**28.1**	**65**	**93**	**7**

Source: SACMEQ II

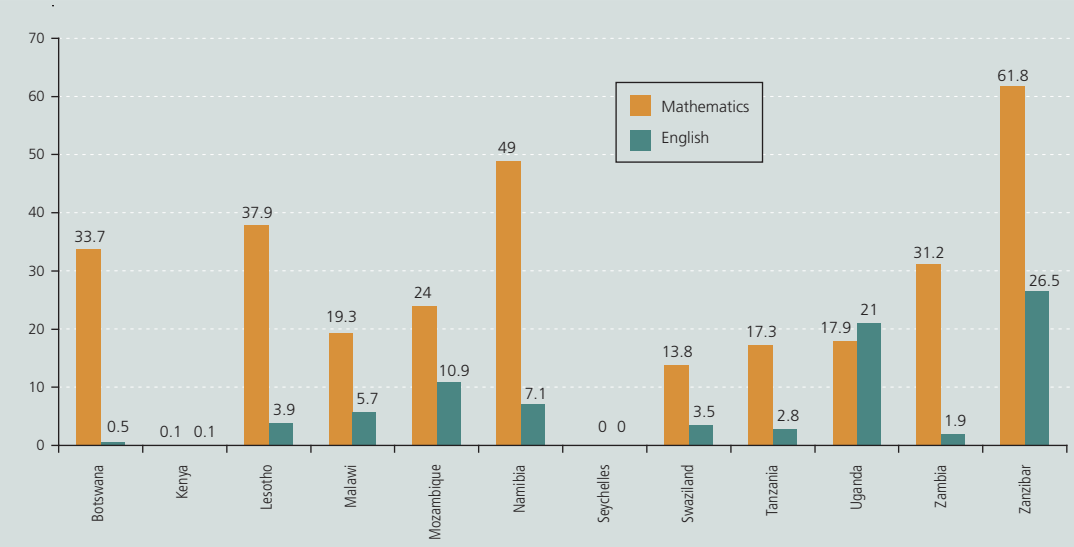
47 The term *reading* used by SACMEQ does not only refer to reading; it takes into account a broader assessment of the command of the English language.

Chapter 4

Which teachers for what kind of learning?

Graph 4.1 indicates the proportions of teachers who do not reach the two highest levels out of the eight levels considered by SACMEQ in reading and mathematics, and thus provides us with an overall view. As a whole, this proportion is higher in mathematics (25.5%) than in English (7%). It is observed that situations can vary according to the subject. Thus, while similar situations are registered in Kenya and the Seychelles in both subjects with virtually no teachers below level 7, this is not the case in Botswana, Lesotho, Namibia and Zambia, where mathematics posed much more of a problem to teachers than reading.

Graph 4.1: Proportion of teachers not reaching levels 7 and 8 in SACMEQ tests



Source: SACMEQ data

These results clearly demonstrate that there are some teachers in the African education systems without the minimum teaching requirements. It is true that the problem can take on different proportions depending on the country, since some countries are not at all concerned by it whereas others such as Uganda or Zanzibar are faced with a genuine problem. This observation is partly to do with the different categories of teachers mentioned in the previous chapter and especially community teachers who are recruited locally according to skills available in the community.

1.2. Teachers' professional training in question

In the previous section, it was stressed that a high academic level was not a guarantee for effective teaching in primary school education. Indeed, the pedagogical dimension is essential and implies specific training for the teacher. This is a more sensitive and complex area than that of academic education. There are diverging opinions on what a good professional training for teachers should consist of, and disputes between specialists can be quite difficult to follow: what training content? What share of practical and theoretical training? How long should training last? Once again, evaluations that relate the teacher's professional training to what pupils learn at school can help in gaining some perspective on this matter, which is at the origin of passionate debate.

In developed countries, as a general rule, every teacher has benefited from pre-service training, which is often identical for all. It is therefore very difficult to draw comparisons in order to identify the impact of professional training. The Bressoux, Kramarz and Prost (2005) study thus constitutes a particularly interesting exception in the framework of rich countries. The authors attempt to estimate the influence of primary school teachers' pre-service training on the achievements of third grade (CE2) pupils in France. They take advantage of a French specificity that allows young graduates to begin teaching without professional training. They take two categories of teachers: (i) beginners with no professional training (36 teachers) and (ii) beginners with professional training (66 teachers). The authors do not observe any significant difference between the two teacher categories in French, while there is a moderate gap, in favour of those who have been trained, in mathematics. This is certainly disconcerting, since pupils' learning achievements are hardly affected by the fact that their fledgling teacher has been trained or not. This raises questions as to the relevance of the professional training delivered and to the role of experience; however, this result is to be put into perspective with other results obtained in very different contexts.

Going over the different studies conducted on the African continent (Michaelowa and Wechtler, 2006; Bernard *et al.*, 2004; Mingat and Suchaut, 2000), there is seen to be a relative convergence of results, showing that pre-service teacher training has a very moderate impact, when this is not simply inexistent. These results also figure in a large number of studies including other developing countries. However, it is important to highlight the limits of the data on which these studies are based and which must be properly understood in order to correctly interpret the results.

Thus, in most of these studies, pre-service training is measured on the basis of duration. The difference is generally made between a long period of training (one year or more) and a short period of, or even no, training. Even so, a teacher who has benefited from one year of pre-service training recently, say in the last two or three years, will probably have followed a totally different training course from a teacher who benefited from training of the same duration 20 years ago. Indeed, it is easily conceivable that the content and methods of training courses change over time. However, the training variable usually used actually compiles the different training courses of same duration that exist (or have existed). Analysis therefore leads to estimating an average impact of all these training courses. Even so, the absence of a significant positive effect is not reassuring since it means that on average the training delivered has no impact on pupil learning. Besides, the analyst is not in a position to say whether some training courses have proved more effective than others. These results do not therefore make it possible to conclude that all teacher training is ineffective, as it has sometimes been distortedly put forward. For that reason, it is of use to have recourse to more specific surveys in order to more precisely address these issues. This type of study is still relatively unusual in poor countries and more particularly in Africa, even if the situation is gradually changing. PASEC is one of the few programmes to have conducted different studies, known as thematic studies, to handle specific topics such as the impact of teacher status and training.

In Guinea, two evaluations of the pre-service teacher training programme (FIMG) were conducted by PASEC in 1999-2000 and 2004-2005. The aim of this programme, with shorter training courses[48] focusing on professionalisation, was to train a greater number of teachers (2 000 per annum compared to a little over 700 previously) in order to address the challenge of universal primary education. The new training courses also allowed newly recruited teachers to be contract teachers. The evaluations attempted to compare FIMG teachers with other teachers who had benefited from three years of traditional training. The conclusions of the first evaluation concerning only the first two cohorts indicate very close results between the different teacher categories, slightly lower in grade 2 for contract teachers and virtually identical in grade 5 (PASEC, 2003). These results are all the more remarkable given that FIMG teachers had one year of professional experience at the most at the start of the school year while 85% of the other teachers had over five years of experience. As this evaluation was conducted at the beginning of the process, a second study was carried out in 2004-2005 in order to fine-tune the initial results. Its conclusions reinforce those of the previous study since they demonstrate that FIMG teachers tend to be more effective in grade 2 whilst the differences in their favour are not statistically significant in grade 5 (PASEC, 2006b). Overall, the outcome of this policy is very positive with a much greater number of teachers recruited and trained and a somewhat favourable impact on learning. The fact remains that status and training are inextricably connected in the context of Guinea and that the impact of one or the other cannot be distinguished. This also goes to show that professional training is part of a teacher policy and that it is useful to consider it in this perspective.

48 Two categories of training were organized. The first included 3 months training, followed by a school year with responsibility for a class while benefiting from pedagogic support, and finally another 3 months training. The second category corresponded to 9 months training followed by a school year with responsibility for a class while benefiting from pedagogic support. This enabled two cohorts to be trained in one calendar year.

There is a genuine need today to better evaluate teacher training in order to identify the best practices for addressing the needs of the education systems. The case of Guinea is an example of the implementation of a teacher policy along with an evaluation process. It is, nonetheless, exceptional at the present time.

Professional training cannot be handled without talking about in-service training. However, even more so than for pre-service training, there are thorny measuring problems here given the diversity of in-service training. Thus the need for specific evaluations is even more pronounced here but unfortunately studies are scarce. One example is the study conducted by Jacob and Legfren (2004) in Chicago at the end of the 1990's. The authors prove pessimistic about the possible impact of continuous training on pupil performance. The public schools in Chicago, where less than 15% of pupils reached national standards in English were put on probation (i.e. 71 schools out of 489) and received financial aid for teacher training. The evaluation of this programme shows that the training appeared to be totally ineffective with a view to improving pupils' school achievements. This is of course a specific context and this result should not be generalized. The problem is that no studies of this type are available in African countries. According to PASEC results, continuous training is seen to have very little influence on pupil learning (Michaelowa and Wechtler, 2006). There again, continuous training programmes set up in the future will hopefully be accompanied by reliable evaluations in order to identify the most effective practices.

Research results converge and do not suggest that teacher training has a major influence on pupil learning. There again, it should not be forgotten that professional training is not the only factor involved in the learning process and it is even very closely connected to status in French-speaking countries as seen in the example of Guinea. Even so, the results do not deny that professional training has a purpose and they argue for a change in existing practices and for further research on this issue. The evaluation of training programmes is still in the very early stages whereas it could contribute much to the evolution of existing training models.

1.3. Does status make the teacher?

Chapter 3 highlighted the recent emergence of new teacher categories. Whether paid by parents or by the government, these new teachers raise many questions as to the quality of the education they actually deliver. They are often blatantly accused of degrading educational quality. Given the expansion of this category of teachers in many countries, their performance has become an increasingly sensitive issue, with those in charge of education and trade union heads alike sometimes taking a fairly extreme stand on the matter. Research results may well foster a convergence of the different opinions.

Bernard *et al*. (2004) have conducted analyses from the PASEC evaluations carried out in Cameroon, Madagascar, Togo and Guinea[49]. The authors notice that "in most cases, pupils are seen to progress roughly in the same way whether they have a civil servant teacher or not." When differences do come to light, these are moderate and not systematically in favour of one particular category. In another study carried out in Chad by PASEC, community teachers, who are recruited and paid by the communities[50], turn out to perform better than civil servant teachers in grade 2 and just as well as civil servant teachers in grade 5 (PASEC, 2005). The fact that teachers who are often less qualified and untrained obtain comparable or even better results than civil servant teachers seems difficult to comprehend at first sight. However, the authors of the study put forward two elements of explanation to do with actual teaching time. The first concerns the fact that community teachers are paid directly by the parents, which may reinforce regular attendance since any absenteeism may generate a loss of salary. The second is to do with the fact that many civil servant teachers have to travel to another locality from the one where they work in order to receive their salary; this sometimes involves several days of absence per month, when pupils are not being taught in the classroom and which penalises their learning. It would therefore seem that community teachers compensate for their lower qualifications by spending more time in school than their civil servant colleagues.

However, in terms of methodology, these studies had not been designed to analyse the impact of non-civil servant teachers on pupil learning achievements. This is why PASEC then conducted specific studies during the 2000-2001 school year (PASEC, 2004a,b). These studies dealt with the impact of contract teachers on pupils' school achievements in second and fifth grades of primary school. The selected survey protocol was based on matching contract and civil servant teachers. For the two grades considered, for each contract teacher surveyed, a civil servant teacher from a neighbouring school (as near as possible) was also surveyed. In the end, the samples group together civil servant teachers and contract teachers working in comparable conditions. In Mali, contract teachers tend to obtain better results than their colleagues in both grades but the gap is moderate in grade 5. In Niger, the result is less clear-cut since there is no significant difference in grade 2, while in grade 5 civil servant teachers seem to be more effective. Using the same data but by matching classes according to teacher status[51], Bourdon, Frölich and Michaelowa (2006) do not

49 It must be pointed out that in Cameroon and Madagascar, at the time of the evaluation, non-civil servant teachers in public primary education were mainly employed by the communities. On the other hand, in Togo and Guinea, they were contract teachers. In addition, in the Madagascar and Togo samples, there are also private sector teachers.

50 The government now partly subsidises community teachers in Chad.

51 The purpose is to select control classes with a civil servant teacher and similar characteristics to the classes run by a contract teacher.

observe any significant difference in school learning achievements according to teacher status, whether in grade 2 or grade 5.

The latter studies, more sophisticated in terms of methodology, confirm the earlier results in that status is not generally at the origin of significant differences in school learning achievements and above all that there is no systematic relation between status and school achievements. These conclusions have sometimes sparked off strong reactions and it is true that they are contrary to popular opinion. However, the specific contexts connected to different status categories must be taken into account since they inevitably have an influence on teachers' investment and motivation. Thus, as far as the studies for Mali and Niger are concerned, the lack of temporal perspective must be taken into account since the studies were conducted only a short while after the contract teacher policy was set up on a wide scale. However, fairly pronounced differences in motivation can be noted between contract teachers and civil servant teachers (PASEC, 2004b), the latter seeming particularly dissatisfied with their professional situation in Mali. This dissatisfaction could contribute to explaining their lower performance. As contract teachers have very little experience, the question is open as to whether they will also show greater professional dissatisfaction over time.

All in all, it is still relatively delicate to precisely measure the difference in performance between teachers that can be attributed to status alone. The measures that are available cover different aspects; however, they do not prevent conclusions on the overall impact of the contract teacher policy on school achievements in the short term. Indeed, if this policy had had a strong negative impact on learning, as sometimes supposed, the previous studies would have demonstrated this. In the long term, it is riskier to give an opinion, all the more so as developments may vary from one country to another. The management of non-civil servant teachers has been diversified and now ranges from local management by the communities to centralised management and also management by the local authorities. Some types of management may possibly be more effective than others. New studies would be needed now that would benefit from hindsight, in order to better appreciate the impact of these new teachers and possibly the effectiveness of the different methods of management.

1.4. The role of teacher experience

If there is one teacher characteristic that results in a consensus as to its influence on school achievements, it is definitely experience. Nevertheless, while it is evident that an experienced teacher would make a better teacher than a beginning teacher, this does conceal some more precise questions: when does experience start making a real difference? In concrete terms, does this mean three, four, five, ten or fifteen years of professional experience? Are there thresholds when changes in terms of teaching effectiveness occur?

In order to answer this question with satisfactory precision, surveys are required with a large number of teachers for each category of professional experience. This is uncommon especially in the African context. Rivkin, Hanushek and Kain (2005), basing their observations on the Texas School Project database already mentioned, which respects this requirement, show that the effect of experience is particularly significant the first year. Thus, teachers with no experience have lower results than their colleagues; this remains true to a lesser extent for two to three years of seniority. However, it seems that there are no further benefits over and above three years. As for Krueger (1999), who bases his observations on the STAR project, he notes a low positive effect from seniority. Pupils who have a teacher with 20 years of seniority have results that are 3% higher on average than those who have a teacher with no experience. However, one of the difficulties in measuring the impact of seniority on school learning achievements comes from the fact that the most experienced teachers often work in "good" schools. In their study conducted in France, Bressoux *et al.* (2005) find precisely that senior teachers are in classes with better pupils and better conditions than beginning teachers. The statistical techniques used by researchers should make it possible to get around this problem; indeed, it is important to take the initial level of pupils into account in the studies in order to measure their progress over a period of time according to different characteristics including the teacher's seniority.

In the African context, fairly similar results are obtained. Michaelowa and Wechtler (2006) observe no impact in second grade of primary school; on the other hand, in grade 5, the teacher's seniority has an influence in French and mathematics, but this is moderate. However, no threshold was estimated in this study and it is therefore an estimation of the average effect of seniority.

The results of the research on teacher seniority confirm the common opinion on the matter. It does, however, seem that the very first years of teaching are the most significant.

1.5. Female teachers perform just as well as male teachers

Very specific attention is given to the topic of teacher gender on the African continent. This attention is probably the legitimate echo of questioning about the situation of little African girls in school and more generally of women's status in society. The slightest enrolment of girls in many African countries has led some international organisations to look into this issue. Besides, while everywhere else in the world girls generally have better results than boys in international assessments, results in Africa show comparable results between girls and boys, and even lower results for girls in mathematics (Bernard, 2006). Starting from there, some assumptions were formulated around the idea that girls learn better when their teacher is a woman whereas in many countries the majority of teachers are male. It is also sometimes reported that women feel more comfortable with very young children and should therefore make better teachers for the first grades of primary school. On the other hand, some people stress that women, due to their family responsibilities, are absent more often than men and that this is harmful to their pupils' learning. As almost always in the area of education, a multitude of contrary opinions intermingle. The results of the evaluations carried out clearly show that there is no systematic difference between men and women (Bernard, 2006); as a general rule, pupils learn in very much the same way with a male or a female teacher. In addition, contrary to popular opinion, it was not proven that girls learn better with women than with men. While these results certainly justify expanding female teacher recruitment, they do not justify setting up single-sex classes.

1.6. Querying the teacher's role in the learning process

The connections between the principal characteristics of teachers, the ones most often mentioned, and school learning achievements have been looked at through the prism of the results of research. Even if general trends should not obscure the specificity of one or another country situation, it is useful to highlight convergences and question their significance. The major observation of research in Africa and in other regions of the world as recalled by Krueger (1999) and confirmed by recent work, is that, at the end of the day, the observable characteristics of teachers have only a moderate impact on school learning achievements. While this result is hardly subject to further debate amongst researchers since it is the fruit of so many studies, this is not so in the world of education, which is why we want to explain as clearly as possible here some of the results relating to training and status, etc. Complex situations need to be qualified in order to understand them but passionate debate hardly leaves any room for this. Nevertheless, the learning process is eminently complex simultaneously involving a multitude of factors, some of which cannot be measured, such as teacher motivation. Naturally, it is the political consequences of these results that are a source of concern for some. It is true that these results can easily be exploited in order to justify drastic cuts say in the financing of teacher training for example. This cannot be justified on the basis of the research results since

a moderate effect, as indicated by the studies, cannot be neglected in something as complex as the learning process, which is characterised by multiple interactions. Thus, the researcher will advocate for the improvement of existing training programmes rather than their elimination or "reduction."

However, it is just as counterproductive to purely and simply reject these results, which is still too common. On the one hand, this means denying some of the realities of African education systems and so not contributing to addressing them. The example of the graduate teacher who had other aspirations than to become a teacher and who finds himself/herself in a remote rural area or with a class of 100 pupils and ends up totally discouraged, may contribute to explaining why the teacher's academic level does not always correspond to better pupil achievements. On the other hand, rejecting such interrogations will not allow other fundamental questions to be posed with a view to improving learning in primary school. Indeed, if we accept that the role of observable teacher characteristics is not as decisive as thought to be, then the question of the teacher's role in the learning process must be raised once again. Would it not be rash to consider that the teacher's influence is limited to the characteristics referred to in the previous paragraphs?

2. The teacher at the epicentre of the interactive learning process

The research results presented lead quite naturally to this question: is teacher impact limited to the observable characteristics already identified? It can already be said that many aspects elude research analysis; motivation has already been mentioned but relational qualities with children, charisma and teaching skills, etc. can also be mentioned. One of the first difficulties comes from the fact that most of these aspects are not directly measurable, so how can they be registered and their influence appreciated compared to the other factors involved in the learning process?

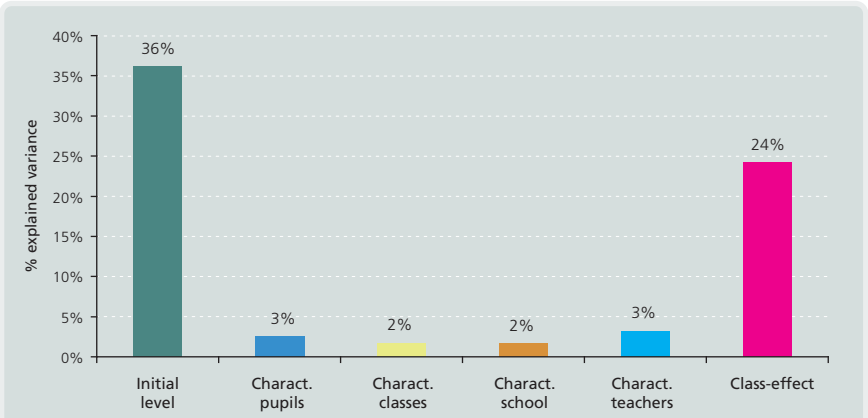
In an attempt to have an overall view of the learning process, it is useful to place the factors involved in this process in several categories and to measure the share of differences in results between pupils that can be explained by each category. In graph 4.2, six main categories of variables were considered. Their contribution to explaining pupils' scores over one school year was calculated in the second and fifth grades of primary school for ten countries having participated in a PASEC evaluation. The most important factor in explaining differences in results between pupils at the end of the year is seen to be the pupil's level at the start of the year (accounting for 36% of differences). This is of course not very surprising insofar as this variable incorporates the pupil's entire schooling history and a share of his/her personal characteristics (including his/her intellectual capacities). However, the pupil's other characteristics (gender, standard of living, age, repetition, etc.) are seen to explain a more limited share of the variance of scores (3%). This observation is also valid for the characteristics of classes (2%), schools (2%) and also for those of teachers (3%) in accordance with what was observed previously. It is important to avoid considering that the role of these categories is negligible; it is simply that their contribution to the quality of learning is more modest than what one might have imagined and above all that other aspects have a more decisive role. This is particularly disconcerting with regard to teachers whose training, status and seniority, etc. explain only 3% of the differences in results between pupils. It is evident that the teacher effect is not limited to these characteristics and that it is also the result of other vectors. This is partly what can be interpreted from observing the class-effect[52] on graph 4.2 (24% of the explained variance). This effect indicates that the fact of being in one class rather than another, with identical context and pupil characteristics, translates into considerable differences in school achievements. This result highlights that there are strong inequalities across education systems, which certainly brings up sensitive issues for educational policy.

52 Technically, this effect is measured by introducing indication variables identifying each class in the statistical model.

Chapter 4

Which teachers for what kind of learning?

Graph 4.2: The influence of the different categories of factors in the learning process in 10 sub-Saharan African countries*



Source: UNESCO-BREDA (2007)
** Burkina Faso, Cameroon, Côte d'Ivoire, Guinea, Madagascar, Mali, Mauritania, Niger, Senegal and Togo.*

The central question is to know what is actually behind this residual measure or class-effect. The most commonly admitted assumption in developed countries is that this effect is attributable to the teacher, i.e. the teacher-effect (Bressoux, 2000); the measure would take into account unobservable teacher characteristics such as his/her charisma, motivation and teaching skills. As the teacher is associated with the class, it is indeed tempting to assimilate the class-effect to a teacher-effect. That gives a glimpse of the major role played by the teacher in the learning process.

However, several aspects are to be considered. The first is a conceptual issue as highlighted by Bressoux: "(…) there is no teacher effectiveness *per se*. (…) This effectiveness is only ever the product of an interaction between a teacher and pupils" (2000, p.143). The author reminds us that the production of knowledge is not the single fact of the teacher but also lies with the pupils[53]. Bressoux specifies: "Understanding the teacher-effect as the product of interaction means that one can envisage the teacher's art of doing as not always meeting with the conditions required to fully exercise it" (2000, p.144). This boils down to considering the teacher-effect as not only attributable to the teacher and is therefore not strictly speaking a teacher-effect.

Beyond these conceptual interrogations, we can also come back to the assimilation between the class and the teacher and explore this in the African context. Concrete examples enable us to identify new limits. For example, it is fairly usual for teachers to be informed somewhat belatedly of their assignment and so to be unable to reach the school where they are assigned in time for the beginning of term. This delay can be up to several weeks for remote areas and this teaching time will not be made up for and so will obligatorily penalise school learning. But should this situation be

53 We are close to the concept of coproduction here as developed by McMeekin (2003) where the teacher and the pupils are co-producers of the educational product.

considered as a teacher-effect when it will be visible in the analysis as a class-effect? Another example, which is also very frequent, is that teachers are absent, sometimes several days a month in some areas, as they have to go and receive their salaries in the regional capital when their school is in a remote area. There again, the teaching time that is lost penalises the pupils, but is this a teacher-effect or an administration-effect? Another example concerns pupils in rural areas who, during the harvest period, are in the fields rather than in the classroom. There again the learning time that is lost will have repercussions on school learning achievements and will be included in our class-effect. However, its origin has nothing to do with school and it would be more appropriate to speak in this case of the harvest-effect…

This last point brings us to the distinction between what is a result of the environment and what is a result of the school itself. In this respect, the question of the pupil's family context must also be considered and especially how the standard of living is measured. In PASEC type evaluations, the information is collected from the pupil and is thus relatively imprecise. Consequently, the class-effect could incorporate effects to do with the composition of pupils and in fact convey differences between communities[54]. Effectively, this class-effect seems to be constituted of many different components that are specific to the African context. This is probably to be linked to the fact that the measures obtained with the PASEC data are much higher than those observed in developed countries. Table 4.2 presents the results of comparable studies conducted in the USA and in France under the label "teacher effect." One must of course be very careful with comparisons since there are differences between studies[55] and it is therefore preferable to take only the orders of magnitude into consideration.

54 This conclusion should however be qualified. The value-added models used in these analyses include the pupil's initial score, which conveys his/her school and extracurricular history, so it can be thought that this variable absorbs part of the effect connected to the pupil's environment. That the class-effect incorporates part of the community influence cannot however be totally excluded.

55 Cf. Bernard (2007).

Table 4.2: Results of studies on class-effects in the USA and France

Authors	Country	Subject	School grade	Class-effect
Armour *et al.* (1976)	USA	English (reading)	6	7%-14%
Goldhaber and Brewer (1997)	USA	Mathematics	10	12%
Hanushek (1971)	USA	SAT*	2-3	9%-13%
Hanushek (1992)	USA	Vocabulary	2-6	16%
Hanushek (1992)	USA	Reading	2-6	10%
Murname and Phillips (1981)	USA	Vocabulary	3-6	10%-21%
Rivkin, Hanushek and Kain (2005)	USA	Reading	3-7	8%
Rivkin, Hanushek and Kain (2005)	USA	Mathematics	3-7	14%
Rowan, Correnti and Miller (2002)	USA	English (reading)	3-6	3%-13%
Rowan, Correnti and Miller (2002)	USA	Mathematics	3-6	6%-13%
Nye, Konstantopoulos, Hedge (2004)	USA	Reading	1-3	>7%-7%
Nye, Konstantopoulos, Hedge (2004)	USA	Mathematics	1-3	12%-14%
Mingat (1984)	France	Reading	1	16%
Mingat (1984)	France	Mathematics	1	12%
Mingat (1991)	France	French and Mathematics	1	14%
Bressoux (1995)	France	Reading	3-5	11%-13%
Bressoux (1996)	France	French	3	1%-11%
Bressoux (1996)	France	Mathematics	3	14%-19%

Source: Bernard (2007)
** Scholastic Aptitude Test—this university admission test has the disadvantage of being sat on a voluntary basis. It therefore corresponds to a selected sub-group of the population.*

These results are seen to be considerably lower than African figures since the average in grades 2 and 5 is 24% in PASEC data whereas none of the above studies reaches that figure. The average is more in the region of 10% with slightly higher results for French. This tends to confirm that the class-effect is not limited to a teacher-effect, since there is no explanation *a priori* for the major differences in teacher-effects from country to country[56]. At the same time, this shows the limitations of this measure, and this is valid for all contexts. Strictly speaking, this class-effect cannot therefore be a teacher-effect, and can even be a very mediocre measure of it in some contexts. On the other hand, it invites us to look at the learning process as a complex highly interactive process in which the teacher plays the central role. The teacher interacts with his/her pupils but also with the school environment and the administration.

In more general terms, the class-effect measure indicates very significant differences in effectiveness between classes in a great number of African countries. The question remains open as to the composition of this class-effect and future research must unquestionably give more attention to this aspect since it clearly appears that the major leeway for improving learning quality has still to be identified. One often-mentioned avenue is school time (Bressoux, 2000; Bernard *et al.*, 2004; UNESCO-BREDA, 2007), but few empirical studies are available to quantify its impact on

56 Measure bias specific to each study can mechanically provide limited differences such as second order noise but cannot justify substantial gaps.

learning, particularly in the African context. Duflo and Hanna (2005) were able to show the positive relation between the time of teacher presence and school achievements in a study carried out in India. There is however a lot of road still to be covered to better apprehend this variable in the empirical studies. This will of course not be the only avenue to be explored; the question of school time is moreover often connected to local management, which must also be considered as a survey priority. One of the unresolved issues is to do with the capacity of observing what can, and what cannot, be attributed to the teacher in terms of school time.

The analyses referred to in this section underscore the central role of the teacher in the learning process, especially through the different interactions he/she has with his/her environment. However, these results also speak in favour of taking the complexity of the learning process into account. They show that the interdependence and interactions between factors are somehow the driving force of this process. Use of the term "teacher-effect" is therefore questionable as it refers to a single causality (that of the teacher) that does not properly report on the reality of school learning. Nevertheless, the teacher is indeed seen to be at the epicentre of these interactions and so he/she must be given key importance when looking into pupil learning. That said, it is not a case of only considering his/her specific characteristics but also of placing special attention on the relations he/she maintains with his/her professional environment. Some points raised such as postings and salary payment come under the everyday management of the education system. If we extend the reasoning through to harvest time in some rural areas, then the school calendar that is ill adapted to local constraints can also be considered as a management issue. The connection between the management of the education system and pupils' school achievements is not always very obvious but it does come through as a major element here.

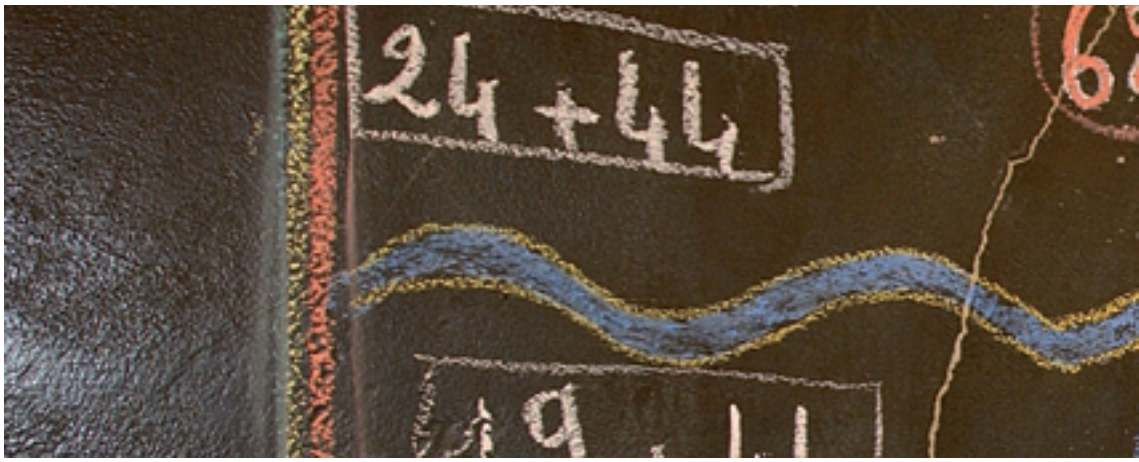
Chapter 4

Which teachers for what kind of learning?

3. Management issues

The different results presented in this chapter encourage us to take a fresh look at the teacher's role in the learning process. Without challenging the teacher's central role, the research highlights that the observable characteristics of teachers such as training, seniority, status, etc. play a less decisive role than generally supposed. On the other hand, as the teacher is at the heart of the interactions involved in the learning process, he/she appears as a central player. It is therefore essential to give greater importance to teachers' relations with their professional environment. This leads to considering management matters as key issues for the learning process and so for the quality of education.

Thus, the interactions between different factors must be taken into account when appreciating the effect of the observable characteristics of teachers. The results of the studies reveal that the most appropriate level of recruitment for primary school teachers is situated between 10 and 13 years of education, especially in view of motivation phenomena resulting from the teacher's academic level, university graduates often having other aspirations than that of becoming a primary school teacher. It emerges that teacher recruitment criteria should not be limited to the academic level but should also give major importance to the candidates' motivation.



Concerning professional training, the mixed results seem to suggest that this does not always occupy the position that it should. The example of Guinea shows that a shorter and much more professional-oriented training course can give interesting results. Specific evaluations are still lacking at present in order to better appreciate the effectiveness of the different forms of professional training. In addition, the studies conducted on the impact of status on school achievements are fairly complex. The fact of being a civil servant or a contract teacher does not necessarily translate into differences in pupil achievements. There are of course differences according to national contexts but not systematically to the advantage of one or another category. The argument that non-civil servant teachers would be less effective than their civil servant counterparts has not been confirmed by the empirical research. This leads to a number of questions on the incentives and motivations of one and the other category to be discussed in the following chapter. As status is closely connected to teacher salary, training and seniority, it is clear that all considerations given to this topic must be situated within an overall perspective.

The previous chapters looked at teacher policy issues and challenges in the broader context of achieving universal primary education (UPE) in Africa. The different perspectives adopted aimed at providing the reader with an overall vision of the subject to enable him/her assess the scale of the challenge to be taken on by African countries.

Chapter 5

Towards an overall vision of teacher matters

Chapter 1 showed that the dynamics at work since the early 2000's give reason to be relatively optimistic about the possibility for a large number of countries to address quantitative teacher needs and so meet the challenge of UPE. Nevertheless, Chapter 2 recalled the burden of financial constraints on the countries

Chapter 5

Towards an overall vision of teacher matters

and pointed out that the significant progress made in the early 2000's could to a great extent be attributed to aggressive salary cost erosion policies generally backed up by the introduction or the development of new categories of teachers: community teachers, contract teachers and less qualified teachers. As salary expenditure constitutes by far the largest share of the cost of primary education, this is obviously one of the key parameters for all countries on their way to UPE. The development of these new teacher categories is therefore a direct result of this heavy constraint on the education systems. This was indeed taken into account by the different partners in education (ministries of education, teachers' unions, parents and international organisations) at the Bamako Conference in 2004. Yet, these recruitment policies have been highly criticised and accused in particular of contributing to the deterioration of school learning achievements. As noted in Chapter 4, this accusation is not corroborated by the research conducted on this aspect even if, from a general point of view, educational quality in African countries is still problematic. However, the question of the sustainability of these urgently defined policies must be raised.

The main consequence of these recent developments is the restructuring of the teaching profession, which, in most countries, now comprises several categories of teachers with very different profiles. The arrival of these new teachers has completely disrupted traditional approaches to teacher policy and justifies rethinking the latter. This is all the more true as the challenge is still sizeable given that the countries will have to recruit, train, deploy and monitor the careers of a growing number of teachers in the coming years. These teachers are expected to deliver quality education to their pupils and thus make it possible to totally reach the goal of good quality UPE as defined in Dakar in 2000. Urgent solutions must now give way to medium-term policies that take into account the financial constraints but also all the requirements of a genuine teacher policy.

The purpose of this chapter is to go over the main components of a teacher policy: recruitment, training, deployment, management of absenteeism, and professional development of teachers. Research and field experience results are utilised in an attempt to identify the avenues to be explored. It would of course be illusory to think that there exists a miracle formula to be applied in all countries. Diversity in country situations is the rule and any excessive generalisation is to be avoided. Asking the right questions is already a first step, and discussing the answers, both those already known and those to be invented, is a second step where everyone will hopefully find food for thought. The ambition here is to simply discuss the principal issues of a teacher policy, putting them into perspective to provide an overall vision.

1. Teacher recruitment

The challenge is to hire competent motivated individuals to teach in schools. The question of the attraction of the teaching profession for potential candidates cannot be ignored but as this point was already discussed in Chapter 2, we shall not go over it again now. The issue here will be rather to analyse the recruitment process and focus on the different stages of that process. The discussion should take into account the existence of different modes of recruitment that have prevailed in the African education systems over the last two decades. Indeed, traditional forms of recruitment handled by the government and featuring pre-service training must be considered as well as direct recruitment by the government or communities when new recruits are sent directly into the classrooms.

1.1. Some considerations for the recruitment and selection of future teachers

The very first step to be taken when looking at recruitment is the estimation of teacher needs. As indicated in the first Chapter of this study, each country must be capable of estimating its needs in teachers and of planning their recruitment on an annual basis. It is not only a matter of identifying overall needs but also and more importantly of projecting the number of teachers to be recruited each year, which implies, amongst other things, arranging for their admission to training institutions and taking them into account in the budget allocated to the ministry of education. This therefore constitutes a complete and demanding planning exercise to be carried out annually in the ministries of education (which presupposes that there are competent people on hand assigned to the task).

This first step is obviously essential but does not tell us anything about the profiles of the future teachers or about how they will be recruited, which brings us to the second step. The research work presented in Chapter 4 can be put to use to address these two points. As far as the academic level of teachers is concerned, while everyone agrees that there is a minimum academic requirement for teaching, there are often diverging opinions about what that minimum is. The studies conducted on the African continent and presented earlier generally argue in favour of a minimum threshold corresponding to 10 years of certified schooling for a primary school teacher. Naturally, the information available for each country must be considered here, as there may be differences from country to country. Also, we know that, on the one hand, the knowledge of individuals may vary significantly for a given academic level and that, on the other hand, social expectations rise along with the level of education and can sometimes have a negative influence on individual motivation. These two elements cannot be ignored and require a pragmatic approach. In this respect, it is no doubt preferable to define a minimum requirement corresponding to a lower secondary

Chapter 5

Towards an overall vision of teacher matters

qualification. However, the level of schooling cannot be taken alone, as people who have qualified from lower secondary education have different levels of knowledge that may not always be satisfactory for teaching. It is therefore important to assess the candidates' actual level with the aid of tests.

Although more delicate, the dimension of individual motivation must also be taken into account. The recourse to interviews already relatively common in other fields, could be applied here. Additional techniques can also be envisaged such as a written examination during which candidates would explain their choice. The combination of a minimum recruitment level of lower secondary completion with tests to ascertain the candidates' actual level and motivation makes it possible to address the principal constraints observed in the field. Testing the candidates' level is relatively common in African countries but interviewing candidates about their motivation is much more unusual if not to say virtually inexistent.

Another dimension to be taken into account in this hiring process is that of gender. The results presented in Chapter 4 show that women prove to be as effective as their male colleagues in the teaching profession and also that they have more specifically a positive impact on keeping girls in school (Mapto Kengne and Mingat, 2002). Thus, the argument of effectiveness in pursuing the goal of UPE should be added to the argument of equal treatment for men and women. Giving special attention to the recruitment of female teachers must therefore be an integral part of the teacher strategy for UPE. Naturally, it is not possible to be very much more precise in view of the diversity of country situations, but this point should be noted here.

The process of candidate selection must of course be rigorously respected and this is one of the important aspects to be taken into account in recruitments. The processes should be assessed on a regular basis to ensure that they are still relevant and to allow for their improvement in line with the changing educational context.

The second step, just described, concerns recruitment for access to professional training, not for access to the teaching profession. The distinction between the two may not be so clear since it is often observed that once the candidate has passed the entrance examination for professional training, he/she is virtually certain of becoming a teacher. The main issue for candidates seems therefore to be for them to successfully pass the examination giving access to teacher training, rather than acquire the knowledge and skills needed to be a teacher. However, teaching does not only require a satisfactory academic level and the necessary motivation but also specific pedagogical skills. Knowledge is not enough: teaching skills are also essential. It is therefore advisable to proceed with the final recruitment after an assessment of the skills specific to teaching. This means that the candidate should be evaluated during training and at the end of training, but also, practically, in the course of teaching. In professional trainings, the assessment of theoretical knowledge cannot replace the assessment of practical skills. A doctor is expected not only to know of the different diseases, their symptoms and the treatment likely to cure them but above all to be able to look after us when we are sick. The same is true for a teacher since it is not a question of his/her knowledge of the different pedagogical theories or classroom practices but of his/her ability to teach using effective practices that are adapted to a particular context. Theoretical knowledge is not to be neglected but should rather be considered as fuelling teacher practice. The key to an effective professional training probably lies in the successful articulation between theory and practice. However, as highlighted in Chapter 4, there is still much to be done in the area of research to determine the contours of appropriate professional trainings. The fact remains that the ultimate evaluation lies in the ability of the teacher to enable pupils acquire the knowledge and skills indicated on the curriculum.

The said evaluation of professional skills proves particularly delicate. In this respect, education systems usually base their evaluation on the observation of the teacher's classroom practice. In this case, an outsider (trainer, inspector, etc.) attends one or several of the teacher's lessons. This person's judgment will constitute the reference for evaluation. Nevertheless, this practice has several limitations. First of all, the teacher may adapt his/her behaviour on the day of the assessment to what he/she thinks is expected of him/her and thus not necessarily show what he/she does, or will do, in the classroom but what he/she is capable of doing[57]. This problem is particularly accentuated when the observation is limited to one lesson, in a class not belonging to the teacher being evaluated. This may be the case for student teachers in the course of professional trainings. Another limitation concerns the judgment made, which, in spite of the use of rigorous assessment models, can vary tremendously from one individual to another, given the relatively diverse representations of good pedagogical practice in the world of education. Thus, there is a share of subjectivity, which can

57 This risk can be limited by analysing the pupils' exercise books if the teacher has full responsibility for the class.

jeopardise the legitimacy of the evaluation. One way of limiting the scale of the problem is to use several evaluators for each teacher. For example, three evaluations could be envisaged: one conducted by a trainer, the second by an inspector and the third by the head teacher of the school where the student teacher is working. Alternatively, one of the evaluators could be an experienced teacher. A committee could then examine these evaluations and pronounce the final decision. There are a multitude of possibilities; in any case, assessing the professional skills that give access to the teaching profession cannot just be limited to a one-off classroom evaluation during training. While this is essential, it is not sufficient for pronouncing a definitive judgment on someone's professional skills[58]. Moreover, this evaluation also serves the purpose of helping student teachers to improve their skills.

To make an evaluation of a student teacher in a real-life situation, he/she must have complete responsibility for a class. One possibility is to consider that the first year of teaching is still a year of training, as in Guinea for example. Besides, this is not inexact since the student teacher continues to benefit from close training support from a tutor teacher who supervises him/her in the school and the visit of trainers from the institution in charge of teacher training. This is a broader concept of teacher training that has the merit of placing the accent on the professional dimension. In this frame, the student teacher could be assessed in a real-life situation throughout the school year by different evaluators as mentioned earlier. Still, the problem of the subjectivity of this type of evaluation, even with several people involved, does deserve special attention. Reviewing practice by peers is a relatively common practice in many professions and is therefore not specific to teaching. It is however more difficult to evaluate the result of the teacher's work just by observing him/her in his/her class. It is preferable to measure what the pupils have actually learnt with this teacher but this involves relatively complex and costly assessment devices that are still the subject of debate as to their methodological value (Mac Affrey *et al.*, 2003). However, the rare studies that compare pupil learning achievements and how school heads have evaluated teachers' work do show that the two are relatively coherent (Murname, 1975). It is not really surprising that the person responsible for a school who observes the teachers' work on a daily basis may have an enlightened opinion on the subject. That certainly suggests granting special importance to the head teacher's appreciation without at the same time calling into question the need for a multiple evaluation. Peer review therefore comes across as a reasonably effective means of evaluation for the education systems. At the present time, the assessment of professional skills is not really a determining factor for gaining access to the teaching profession in many countries. It is nevertheless of importance if the aim is to recruit teachers while granting professional skills a central role.

58 Marginally, it can help to identify people whose shortcomings are too severe for them to teach.

We have just gone over the principal steps to be taken into consideration for the traditional recruitment of teachers. The first one is to do with determining teacher needs annually. The second concerns access to teacher training and aims at ensuring that candidates have the necessary knowledge and motivation. The third step concerns evaluation during and at the end of professional training. Finally, the last stage consists in the assessment of the professional skills of the individual in a working situation. Recruitment, training and evaluation thus appear to be closely connected.

1.2. "Direct" recruitment

The previous section was devoted to the "traditional" method of recruiting teachers, or at least how we would like to see all teachers recruited. Nevertheless, parallel recruitments have developed in African education systems, as noted in the previous chapters, either as a government initiative (non-civil servant and/or untrained teachers) or as a community initiative to counter teacher shortages. By massively introducing teachers with little or no professional training into the education systems, these recruitments have very much reshaped the teaching profession in some countries and raise serious questions for educational policy.

Community teachers are recruited locally, directly by the pupils' families. There are no recruitment criteria other than the availability of someone with the highest possible level of schooling in the community. The level of schooling of community teachers can therefore vary tremendously and is not always adapted to the demands of the teaching profession. In many countries, aggressive teacher policies attempt to train these teachers and sometimes even to integrate them. The examples of Madagascar and Central African Republic (CAR) have already been mentioned in Chapter 3. This can be a huge challenge, both quantitatively and qualitatively. Some of these teachers do not have the minimum academic standard required; it is thus not just a case of providing them with professional training to bring them nearer to minimum standards. Finding global solutions to these situations, the scale of which is not always easy to measure, seems relatively complex. Assessments to determine teachers' academic levels and so their training needs are lacking. Some countries like Mauritania are however taking steps in this direction and it is to be hoped that many others will follow suit since it is very difficult to make effective remedial proposals without a precise diagnosis.

The issue is similar for teachers recruited by the government and sent directly into the classrooms without any true professional preparation (short training courses or even no training at all). The principal difference with the recruitment of community teachers lies in the fact that these recruitments generally have a minimum academic requirement of at least a lower secondary qualification. Even so, this does not mean that all teachers recruited in this way do have the required level. The problem can however be expected to be less critical than for teachers recruited directly by the communities who may have a much lower level of schooling.

Chapter 5

Towards an overall vision of teacher matters

Taking the above into account, it is clear that any professional training aimed at enhancing the qualifications of these urgently recruited teachers must be adapted to their academic level and to their professional experience. In some cases, it will be necessary to bring teachers up to standard before offering professional training[59]. That said, the people concerned have often been exercising in the teaching profession for several years and have consequently gained experience that cannot be ignored. It is probably not very appropriate to provide them with the same training as for people who have never taught before. Moreover, if, over and above training, the aim is to incorporate them in the formal system as is the case for school masters in Central African Republic, then training must lead to certification corresponding to at least one of the teacher categories. An additional constraint is not to remove these teachers from their classrooms for training purposes in order to avoid exacerbating teacher shortages. Different formulas are being, or have been, experimented to address these needs. There are two major options, distance education, and training during the school holidays. Some English-speaking countries such as Malawi have opted for distance education whereas others like Central African Republic have opted for several sessions of conventional training during the holidays.

Whatever the type of training selected, if it is to lead to professional certification, it must comply with the evaluation criteria mentioned earlier, i.e. an evaluation combining the knowledge gained from training and practices in a classroom situation. The advantage here is that these people have teaching posts and can therefore be evaluated in their class.

59 It cannot be ruled out that in some cases the level of knowledge may possibly be too low to follow adequate professional training.

2. The challenge of teacher training

The question of professional training has already come up through the issue of recruitment in the previous paragraphs. The aim here is to put into perspective the challenge of the number of new teachers to be trained in the coming years in order to reach UPE and ensure quality education. The challenge is two-fold: (i) train the growing number of new teachers needed for schools and (ii) train the teachers already in teaching posts who have not received adequate pre-service training. There are thus two categories of training to be considered, pre-service training and training for upgrading unqualified teachers. However, the challenge is not only quantitative; in many countries, it is not a matter of doing more than what is done normally but rather to further develop existing training courses and sometimes to even create new ones. Chapter 4 has shown that questions are raised as to the effectiveness of professional training and that the duration of training is not a guarantee of quality.

2.1. Developing and enhancing pre-service training

The most common form of initial training for new teachers takes place in specialised institutions (teacher training colleges, *écoles normales d'instituteurs*, etc.). This type of training is delivered by public or private structures and is sometimes subject to fees. Training is of variable duration, generally lasting from one to three years. This usually includes a period of practical experience in the classroom, which may last from several weeks to two years (cf. table 5.1).

There is significant variation in training content (in the balance between the subjects taught and the development of teaching skills), the way classroom practice operates (with or without a mentor, in reference schools, in rural areas, etc.), and in support for those coming out of training when they take up their teaching duties. In many cases, newly trained teachers find that they have to cope without any real support from the school head or from the tutors at the training institution.

In general, admission to training is barely selective. If a candidate has the required academic qualification, then he/she is accepted. Candidates must have completed lower secondary or upper secondary education and be in possession of their diploma (lower secondary *Brevet, Baccalauréat*, O levels, COSC, MSCE) with, for the English-speaking system, a minimum number of passes or grades[60], particularly in English and mathematics. In Eritrea and Guinea, females and members of linguistic minorities are accepted with lower qualifications with a view to attracting them to the profession. Amongst the countries considered in table 5.1, only The Gambia has a more complex system of selection, with an entrance examination and interviews, in order to assess whether the student is really motivated to teach.

60 A grade is higher than a pass.

Chapter 5

Towards an overall vision of teacher matters

Table 5.1 : Some characteristics of the pre-service training system for teachers in some English-speaking countries

	Eritrea	The Gambia	Ghana	Lesotho	Malawi	Uganda	Zambia
Entry level	End of secondary (grade 12)	End of lower secondary (O Level)	End of lower secondary (O level), 5 credits	End of secondary, 4 credits (to include English)	End of secondary/ MSCE credit in English, a pass in maths	End of lower secondary (O Level)	End of secondary with a pass in English and maths
Duration	1 year inc. classroom practice (2 weeks and 1 month)	1 year + 2 years in classroom	2 years + 1 year in classroom	3 years	1 year + 1 year in classroom	2 years + 6 weeks in classroom	1 year + 1 year in classroom
Selection	On academic grades	On academic grades/ entrance exam/ interview		On academic grades	On academic grades	On academic grades	On academic grades

Source: Lewin (2004), World Bank (2007a-g)

The additional needs for qualified teachers are going to further accentuate pressure on the pre-service training systems and the latter will have to multiply their supply of trained teachers by two, three or even four. Thus, in many countries, two or three-year training courses in specialised institutions will prove to be incompatible with the education systems' needs for teachers. However, full-time initial training over a period of two or three years is in fact just one of the options. Alternatives based on shorter periods of introductory training followed by periods of work experience interspersed with subsequent training inputs building on the base acquired from school experience could be more effective by offering a better balance between theory and practice (Lewin, 2004). It is thus possible to envisage short pre-service training in training institutions linked to school holiday workshops, supported by distance learning and in-class support. This kind of thinking is not only in line with the need to address the constraint of training more and more people but it also shows a genuine will to enhance the performance of the training system.

To rise to the challenge, and increase recruitments from around 700 teachers per annum to around 2 000, Guinea has made radical transformations to its pre-service training system by shortening the duration of training and putting the emphasis on its professional nature[61]. Initially, two training formulas were set up: the first was based on a three-month training course at the teacher training institute, followed by one year in the classroom with support from the school, then another three months at the teacher training institute; the second consisted in nine months of training at the teacher training institute followed by a school year in the classroom. This has enabled two cohorts to be trained annually instead of one and a significant increase in the number of teachers trained. Moreover, evaluations conducted by the CONFEMEN Programme for the Analysis of Education Systems (PASEC) on the pedagogical capacity of these new teachers to enable their pupils make progress have proved encouraging since their results are equivalent to, or even better than, those of teachers who had benefited from three years of training.

Current thinking, as illustrated by the example of Guinea, tends to put the emphasis on reinforcing the professionalisation of teacher training. Special attention is given to the junction between theoretical and practical training. Reforms are ongoing or expected in a large number of countries and these should be accompanied by evaluations of their effectiveness and adjustments made, as appropriate. There are still too few factual elements available to fuel the considerations of decision-makers.

2.2. Training untrained teachers already in posts

This type of upgrading training for untrained teachers already in posts is relatively recent in African education systems but is destined to develop rapidly if each teacher is expected to have benefited from some professional training. Indeed, as seen in Chapter 3, there are still a lot of teachers who have had little or no training in some countries, especially in post-conflict countries.

The dual constraint of this training, that is to say the heterogeneous levels of the people concerned and the need to reduce to a maximum their absence from the classrooms during training activities, has already been mentioned in the section on recruitment. The latter constraint implies the organisation of distance education or training sessions during the school holidays, or a combination of both. Table 5.2 provides examples of upgrading training in three countries. Different modalities can be observed. These involve training sessions during the school holidays and support from tutors at school level in The Gambia, and mixed-mode systems comprising a distance learning module and conventional study sessions in Lesotho and Zambia.

61 This is Guinea's pre-service teacher training programme (FIMG) launched in 1998.

This type of mixed training consists of distance education (delivered via distance learning aids), and college-based training during the school holidays, and sometimes at weekends, combined with support from tutors at school level. Conventional study sessions are usually decentralised and organised close to the teacher's workplace. The duration of training varies, ranging from 18 months in Zambia to 3 years in The Gambia. This training is intended for teachers who have had little or no training and who have already been teaching for at least two years. The curriculum is generally along the lines of full-time pre-service training curricula, but with the emphasis on practice (Lesotho) and adapted to the learners' needs (Eritrea). These training programmes must take into account the experience already accumulated by the learners, as this is definitely an advantage. There is still the difficult issue of the teachers' heterogeneous academic levels already highlighted. This argues in favour of modular training programmes.

Table 5.2 : Characteristics of training for untrained teachers (distance and work-based learning)

	The Gambia	Lesotho	Zambia
Prerequisites	At least 2 years of teaching	At least 2 years of teaching and 5 passes in the examination at the end of secondary education	/
Modalities	Tutor system at school level; conventional sessions: 9 weeks of lessons distributed throughout the year	Distance learning module; decentralised conventional sessions: 2 weeks and weekends	Distance learning module; tutor system at school level; local college-based conventional sessions at holiday time
Duration	3 years	/	18 months
Qualification	Examination: Certificate	Diploma	Certificate/diploma

Source: World Bank (2007b,c,f), Lewin (2004)

There again, implementation of these new types of training must be accompanied by evaluations in order to appreciate their impact, particularly in terms of learning quality, and to make any necessary adjustments. There are at present virtually no research results on these topics to guide future initiatives.

Teacher training is bound to undergo considerable changes to address the challenges of UPE. It is not only a question of duration or the appropriate time for training, but training content and the very concept of training itself are to be reconsidered.

3. Improving coherence in teacher allocation to schools

Once teachers have been recruited and trained, they must then be allocated to schools. This is a common management problem, which is particularly critical in a context of teacher shortages. If there are not enough teachers to cover the needs of the education system, it is all the more important, for both reasons of efficiency and equity, that their allocation to schools address educational needs in the best possible way. In the interests of efficiency, it is indeed important to ensure that the education systems have the necessary mechanisms for the judicious and coherent allocation of teachers across schools. In the interests of equity, it is important not to deny rural, remote or disadvantaged areas an adequate number of teachers. Due to the weight of salary expenditure in the education budget, the way in which teachers are allocated influences equity in the distribution of public resources. In this respect, the analysis of teacher distribution throughout the territory informs on the degree of efficiency and equity of the deployment systems used.

Chapter 5

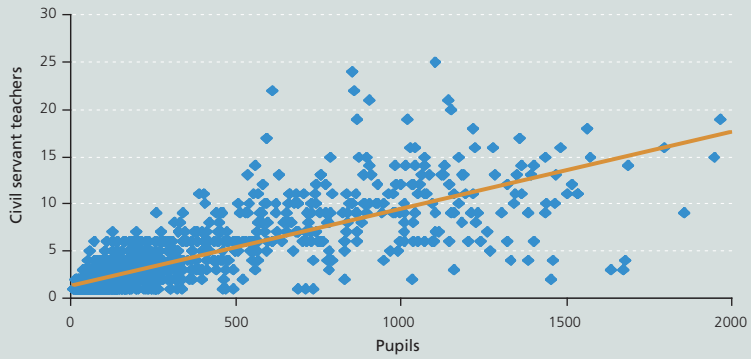
Towards an overall vision of teacher matters

3.1. Coherence in teacher deployment throughout the territory

The analysis of coherence in teacher allocation throughout the territory is based on the simple principle of considering that the number of teachers in a school should be connected to the number of pupils. The more pupils in a school, the more teachers there should be and, consequently, schools with the same number of pupils should have roughly the same number of teachers. We need therefore to look at the relationship between the number of pupils and the number of teachers in a school.

Firstly, this can be represented graphically as in graph 5.1 for the case of Burkina Faso. Generally speaking, the expected relationship, as represented by the straight line on the graph, can indeed be observed in the set of countries studied. However, it is often seen to be far from perfect. Thus, among schools with 400 pupils in Burkina Faso, some have eight teachers while others only have four. Similarly, among schools with 10 teachers, enrolments can vary from 210 to 877 pupils. It is therefore obvious that there are problems of coherence in the allocation of teachers to schools. This phenomenon is not specific to Burkina Faso and exists in a great many African countries.

Graph 5.1 : Relationship between the number of pupils and the number of civil servant teachers in primary schools in Burkina Faso



Source: CSR-Burkina, to be published

Secondly, to analyse the problem of coherence and establish international comparisons, an indicator is generally used in order to appreciate the quality of the relationship between the number of pupils and the number of teachers. This is the determination coefficient or R^2, which has a value of between 0 and 1: the closer to 1, the stronger the relationship. The inverse of this R^2 ($1-R^2$) can be interpreted as the share of the phenomenon of primary school teacher allocation connected to other factors than the number of pupils actually in the schools. The higher this figure is the more marked are the problems of coherence in teacher allocation. Table 5.3 presents the share of the phenomenon of teacher allocation to public primary schools not connected to the number of pupils for 15 African countries. This table presents the figures for teachers directly allocated by the government (column 2). However, some countries use community teachers who are not allocated by the government and who are recruited by the communities to compensate for the government deficit. It therefore seems appropriate to present the results including community teachers too (column 3) for the countries where information is available; this gives some idea of how this kind of community involvement can restore the balance.

Among the countries where information on the share of teachers allocated by the government not attributable to the number of pupils, is available for a fairly recent year, the variation ranges from 7% in Guinea to 54% in Benin. The average is 30% meaning that, on average, for the countries considered in this sample, 30% of the phenomenon of teacher allocation by the school administration does not depend on the number of pupils but is related to other factors. Countries like Central African Republic, Burundi and Benin, with figures of over 45%, have huge problems of coherence in teacher allocation. However, in the case of Benin and Central African Republic, when community teachers are taken into account, this results in a sharp decrease in values (to 39% and 24% respectively). In these countries, efforts by pupils' parents to compensate for the deficiency in teacher allocation by the government have been positive. However, this raises questions of equity since it is the parents who often have to finance these teachers directly[62]. As a whole, results suggest that progress is possible and necessary in most countries in the region for better distribution of teachers to schools through more equitable and more coherent allocation across the different schools. Significant gains can be made, as demonstrated by the situation in Lesotho, Niger or Guinea.

62 In the case of Benin, community teachers are subsidised by the government but parents contribute too.

Table 5.3 : Share of primary teacher allocation not attributable to the number of pupils ($1-R^2$) in 15 African countries (years between 2002 and 2007)

Country	($1-R^2$) in teacher allocation by the government	($1-R^2$) in teacher allocation by the government + community teachers
Guinea (2004)	7	NA
Lesotho (2003)	18	-
Niger (2003)	19	NA
Guinea-Bissau (2006)	20	-
Burkina Faso (2007)	22	-
Mauritania (2004)	22	-
Ethiopia (2002)	28	-
Chad (2004)	33	34
Malawi (2007)	34	-
Congo (2005)	38	35
CAR (2005)	46	24
Burundi (2004)	50	-
Benin (2006)	54	39
Cameroon (2002)	NA	45
Mali (2004)	NA	27
Average	**30**	**34**

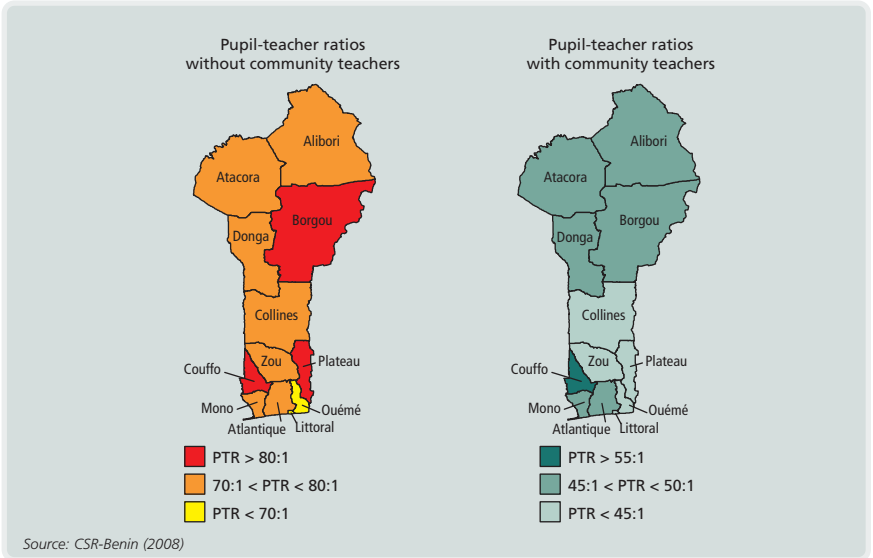
Source: CSRs

The above elements provide us with a global vision of teacher allocation and enable international comparisons. It is also possible to look at coherence in teacher allocation from a national stand by comparing differences in pupil-teacher ratios[63] (PTR) between the different provinces, districts and other administrative subdivisions. This is a very interesting perspective and of direct use to education system management since it highlights any imbalances.

Map 5.1 provides a visual illustration of the differences that can exist between different provinces in the same country through the example of Benin. Thus, it is clear that districts like *Littoral* and *Ouémé* are much better off than districts such as *Borgou* and above all *Couffo*. The important role played by community teachers is also clear. Thus, in *Borgou*, the PTR would virtually be over 80 without community teachers, whereas it is in fact between 45 and 50.

63 This is the average number of pupils per teacher.

Map 5.1 : Pupil-teacher ratios (PTR) with and without community teachers in Benin, 2005-2006



Source: CSR-Benin (2008)

Table 5.4 gives information on pupil-teacher ratios in a number of countries, indicating in each case: the lowest and the highest PTRs observed in the provinces, the gaps between these two ratios and the average ratio. It is to be noted that there are important limits to the information collected: it was not always possible to distinguish between civil servant teachers and community teachers or even teachers from the private sector. As such, it is not possible to make comparisons across countries or to pass a judgment on the allocation of teachers by the public authorities.

In the countries considered here, the spatial distribution of teachers is uneven and distinctly unbalanced. There are often considerable gaps. The case of Central African Republic illustrates, as in Benin, the important role of community teachers in the education system. Without them, "virtual" PTRs would vary from 109 to 575. Uganda and Malawi are also facing highly contrasted situations from one district to another. Thus, in Malawi, the average number of pupils per teacher varies considerably, ranging from 36 to 120 between the two extreme districts. There are 10 districts with an average PTR of over 90 while in 5 districts the PTR is under 55. Among these five districts, four are in urban areas (World Bank, 2007d). In Uganda, the PTR varies from 32 to 93 according to the district. The lowest pupil-teacher ratios are observed in the district of *Kalangala*, which is characterised by a scattered population requiring small schools. On the other hand, the highest PTRs are observed in districts in the North, which have been affected for many long years by armed conflict (World Bank, 2007e).

Table 5.4 : Variation in pupil-teacher ratios at provincial level for some sub-Saharan African countries

Country	Pupil-teacher ratio			
	Lowest	Highest	Average	Gap
Benin (2005-2006) without community teachers	55	92	74	37
Benin (2005-2006) with community teachers	/	/	47	/
Burkina Faso (2005-2006)	45	56	50	11
The Gambia (2005-2006) lower secondary	36	49	41	13
Eritrea	30	53	48	23
Lesotho (2005)	38	47	42	9
Malawi (2006)	36	120	80	84
Uganda (2006)	32	93	48	61
CAR (2006) without community teachers	109	575	199	466
CAR (2006) with community teachers	78	109	92	31
Tanzania (2006)	40	69	52	29
Zambia (2006)	46	79	64	33
Zanzibar (2006)	23	54	33	31

Source: CSRs, World Bank (2007a-f)

In the other countries, although the differences in the number of pupils per teacher from one area to another are less significant, they still neighbour on 30, which is in itself high. The smallest gaps are observed in Burkina Faso, The Gambia and Lesotho, registering at 11, 13 and 9 respectively. In these countries, there seems to be a fairly egalitarian distribution of teachers across provinces; however, this situation can conceal considerable variations within provinces. Thus, in The Gambia, one quarter of *Region 2* schools have a PTR of over 58, whereas in another quarter of them, the PTR registers at under 35 (World Bank, 2007b). In Burkina Faso, an analysis of the proportion of schools with normal teacher allocation within the different provinces (cf. table 5.5) reveals relatively low proportions: from 13.7% for the Eastern province to 30.5% for the Centre-South province. That means, amongst other things, that the main problem in teacher allocation is distinctly more pronounced within the provinces themselves than across the different provinces (CSR-Burkina, to be published).

Table 5.5 : Average pupil-teacher ratio by province and coherence of teacher allocation within provinces in Burkina Faso

Province	Average pupil-teacher ratio	% of schools normally allocated	% of schools under-allocated	% of schools over-allocated
Boucle du Mouhoun	49.3	26.8 %	33.6 %	39.6 %
Cascades	51.3	19.8 %	37.8 %	42.4 %
Centre	48.8	26.9 %	32.9 %	40.2 %
Centre-East	52.4	24.8 %	35.0 %	40.2 %
Centre-North	55.6	26.4 %	33.3 %	40.3 %
Centre-West	47.1	27.1 %	32.7 %	40.2 %
Centre-South	51.6	30.5 %	32.7 %	36.8 %
East	46.9	13.7 %	36.3 %	50.1 %
Hauts-Bassins	52.8	22.5 %	34.1 %	43.4 %
North	53.1	23.7 %	36.9 %	39.4 %
Plateau central	47.2	24.2 %	34.4 %	41.4 %
Sahel	45.0	17.3 %	33.4 %	49.3 %
South-West	44.9	21.5 %	31.5 %	47 %
Overall	**49.8**	**23.5 %**	**34.2 %**	**42.3 %**

Source: CSR-Burkina (to be published)
Note: Normally allocated schools are schools where the pupil-teacher ratio is situated within more or less 10% of the average pupil-teacher ratio in the province. An under-allocated (or over-allocated) school is one where the pupil-teacher ratio is over 10% higher (or lower) than the average ratio in the province.

Considerable differences are thus observed across provinces but also within provinces. Moreover, these differences do not necessarily correspond to administrative areas. Instead, rural areas tend to be systematically at a disadvantage compared to urban areas. Results of analyses carried out in the different CSRs show, indeed, that urban areas are systematically at an advantage. On average, they benefit from 0.2 (Guinea) to 1.9 (Niger) teachers more than a comparable school located in a rural area. In Cameroon, disparities are even more marked according to the degree of urbanisation: large cities with a population of over 200 000 have almost two teachers more than a school of identical size in a rural area; as for small towns, they benefit from 0.4 teacher more on average.

The low appeal of rural locations leads to a situation where schools established in these contexts have difficulty in attracting, retaining and maintaining their personnel and often see themselves neglected to the benefit of city schools or schools located in privileged areas. Thus, there are urban areas with excess teachers and areas where many positions remain vacant, often for long periods of time, in rural and remote areas. It is true that conditions in rural areas can sometimes be quite difficult (cf. box 5.1).

Rural areas are of particularly limited appeal to women. In most countries in the region, women are less inclined to accept posts in rural areas. As far as countries studied by the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) are concerned, while almost half of all teachers are women, they represent 42% of teachers in rural areas, compared to 66% in urban areas (even so, there is considerable variation from one country to another). In West and Central Africa, the proportion of female teachers is very variable, but generally lower than in East Africa, ranging from 14% in Chad to 65% in Niger. However, like their East African counterparts, women in the sub-region are systematically less represented in rural areas. In Chad, they hardly account for 4% of teaching staff in rural areas, compared to 31% in urban areas. Women are also poorly represented in rural areas in Mauritania (12%) and in Togo (15%) (Bonnet, 2007).

The existence of social barriers limits sending women to rural areas; in fact, it has been reported that it is considered unacceptable for women to live alone in some communities. In other locations, the arrival of unmarried female teachers can be a source of anxiety for local women who consider that they represent unfair competition in the search for men due to their higher status and pay (World Bank, 2007d). In many countries, unmarried female teachers have expressed their concern of not finding an adequate husband from the same socioeconomic background, or even of being obliged to marry an illiterate farmer under possible pressure from the community. Added to these arguments are those connected to safety or, for married women, of being separated from their husband (Hedges, 2000, quoted by Mulkeen, 2006). It has also been put forward that it is easier for men to engage in complementary agricultural activities than for women, while for the latter there are more opportunities for an additional job in towns–in private education or in commercial activities (Mulkeen, 2006). These difficulties often drive the departments in charge of teacher deployment to limit sending women into rural areas, to avoid a rejection on their part or a premature request for transfer.

Box 5.1: Specificities of rural areas

Mulkeen (2006) has identified a series of characteristics to explain the low appeal of remote rural areas:

- The quality of life may not be as good as in urban areas. Aside from the problem of finding decent accommodation in permanent structures, which is at the heart of the concerns of teachers posted to remote areas, the absence of leisure activities is sometimes mentioned as a constraint.
- The distance from public services in general, and health services in particular, may be of major concern, especially for teachers with chronic disease or with HIV/AIDS. Some countries have made arrangements for teachers who are sick to be transferred to towns, e.g. Uganda, or close to health facilities, e.g. Malawi or The Gambia (World Bank, 2007b,d,e). In Ghana, health problems are registered as the first cause of early transfer to towns (Hedges, 2000, quoted by Mulkeen).
- The working environment is generally more difficult in rural areas: school facilities of poor quality; lack of textbooks and other teaching aids; overcrowded classes; limited or little pedagogical support and monitoring; children and parents less sensitive to schooling.
- Similarly, opportunities for refreshing or upgrading skills are more limited for teachers living in rural and remote areas, as are opportunities to do further study, reducing their career prospects and possibilities of geographic mobility.
- As highlighted by Akyeampong and Stephens (2002, quoted by Mulkeen), primary school teachers generally come from higher than average socioeconomic backgrounds and are often from urban areas, making it more difficult for them to accept postings in remote or rural areas, which are also considered as less prestigious. Problems of local languages may complicate and curb the deployment of non-local teachers.
- Finally, for some teachers, urban areas provide opportunities for supplementing their income with private tuition or in private education.

Knowing that the challenge of UPE is first and foremost a rural challenge, decision-makers, and the educational community as a whole, must give very serious attention to these staff deployment problems. The following section focuses on the different avenues to be explored to meet this challenge.

3.2. Teacher deployment issues

The problems of teacher deployment brought to light in the previous section could jeopardise the generalisation of primary schooling. It is therefore appropriate to identify the causes of these problems. Three different interlocking causes can be distinguished. The first concerns practices whereby political or administrative personalities, at central or local level, intervene in the allocation process of individuals. The second is to do with the absence of an effective system of teacher management. Finally, the third is connected to individual issues: reluctance to go to certain areas, family reunification, etc.

It is relatively frequent in many countries for people in positions of political or administrative responsibility to exert an influence on teacher allocation processes (Hallak and Poisson, 2006). Whether a matter of favouritism or purely and simply of corruption, these practices considerably detract from effective teacher deployment. Teachers benefiting from socio-political networks are the ones who generally request interventions, in order to influence the choice of the school they are to be assigned to. In some countries, corruption is common knowledge and teachers know that they will have to pay certain people to obtain a new posting (UNESCO, 2008). This problem is not specific to centralised management systems and also exists at local level. Thus, in some countries, it is relatively common to hear those in charge of education locally complaining about local administration influencing teacher assignments. Their interventions naturally correspond to very different criteria from those related to the coherent and effective management of human resources. School level management by parents and head teachers also has its shortcomings, since cases of recruiting family members or friends as teachers have been observed in West Africa (De Grauwe *et al*., 2005). It is obvious that, for the vast majority of teachers, these practices are unfair and discouraging since they do not take into account objective criteria. They are not necessarily connected to a particular management mode but take advantage of a common characteristic: the lack of transparency in teacher allocation procedures. This is a serious problem of governance (Hallak and Poisson, 2006), which is able to develop due to the weakness of existing regulation systems. Solutions are not necessarily easy to apply since they require strong political determination; however, they are based on simple principles. Firstly, the criteria and modalities of teacher assignment must be made transparent and secondly the responsibilities in the decision-making chain must be clearly identified.

The lack of transparency of the staff management system as well as its lack of effectiveness has a direct effect on the allocation of teachers to schools. There are several types of teacher management systems in African countries and these have to be examined to appreciate their advantages and limits. The most common deployment model in the region is the centralised one. This generally corresponds to a two-tier system of teacher assignment in public education, with deployment initially made from central to provincial level followed by a second allocation from provincial level to the schools. Mostly, teacher allocation at provincial level is based on

information coming from the schools on enrolments, the pupil-teacher ratio and/or the number of classes. To be effective, this type of centralised model requires efficient information systems, which are often lacking in African countries. It is generally characterised by a lack of reactivity and a less effective system of control unable to address local needs as made clear in the previous analyses.

The lack of qualification of the personnel in charge of managing the education systems can also be mentioned. Indeed, in many countries, most of the personnel are not true administrators but are very often teachers untrained for these duties, which is not likely to make for more effective management.

The negative remarks on centralised management can however be moderated by highlighting the fact that the setting up of "post-based" systems has proved relatively effective in some countries. The principle consists in deploying teachers on the basis of posts granted to each school. If the posts are correctly defined at each school level, especially according to enrolments and their growth, this system can avoid the volatility observed in a traditional centralised system. Indeed, if for example a school is granted five posts and one of them is vacant, then only one teacher can be assigned to this school, significantly reducing incoherence in allocation. In Madagascar, rules have been developed, alongside the massive recruitment of non-civil servant teachers, to determine the number of subsidised non-civil servant teaching posts school by school, based on existing pupil-teacher ratios and number of classrooms (EFA, 2008). Post-based recruitment was also applied in Benin for a period of three school years (2004 to 2006) in the framework of contract teacher allocation. In spite of the positive impact of this type of deployment, the recruitment of contract teachers has once again been based on the old method (i.e. at central level with deployment throughout the whole territory) since the 2007-2008 school year. Post-based recruitment also seemed attractive to Malawi with a view to modelling teacher deployment on the basis of the number of posts defined for each school, attempting in this way to avoid over allocation in urban areas. It is however unlikely that such redeployment, from over-allocated to under-allocated areas, could be implemented without some opposition: redeploying teachers is a difficult task that could lead to a high level of teacher attrition in case of forced relocation (World Bank, 2007d).

Decentralisation of part of the recruitment process to local administration level, while enabling an acceleration in recruitment and better addressing local needs for teachers, has however suffered from local pressure of influence, limiting the rational deployment of teachers (Mulkeen, 2006).

Finally, the so-called "market" system, where teachers apply for posts advertised by the schools, is a third way of managing teacher deployment. The case of Lesotho is interesting in this respect. Teachers apply directly for vacant posts advertised by the school itself but financed by the government. This practice has the merit of reducing

management procedures at central level. It also provides the schools with greater autonomy in teacher recruitment and management, and enables most vacant posts to be filled, even in the less attractive areas. However, it does have its limits (Mulkeen, 2006). Indeed, this practice tends to give preference to local recruits rather than to outsiders, which can be exacerbated by pressure from influential personalities on the school recruitment committee. In the end, it is not always the most qualified individuals who obtain the posts. In addition, it was also observed that the least attractive areas found it difficult to recruit the most qualified teachers, as the salary was not attractive enough. To be effective, such a system must set up transparent recruitment procedures and ensure that schools located in the most difficult areas are in a position to offer incentives to teachers with a view to attracting and keeping them (OECD, 2005). Ultimately, that implies the effective centralised management of information, which brings us back to certain difficulties mentioned earlier.

Whether deployment procedures are centralised or decentralised or whether they are market-based, problems of imbalance in teacher allocation subsist, particularly in the most remote areas. The difficulty experienced by the authorities to assign teachers to where they are needed tends to weaken and discredit the deployment system as a whole, and contributes, as highlighted by Gottelman-Duret and Hogan (1998a), to the sentiment that nothing can be done to rectify these inequalities. It is true that the authorities are particularly powerless, lacking means of control and sanctions, and so of means of pressure to impose allocation decisions. When sanctions do exist, they are rarely applied and with some difficulty. In Malawi or in Zambia, for example, forced assignment has led to teachers purely and simply abandoning their jobs. By way of illustration, in the Eastern province of Zambia, out of the 1 116 teachers

recruited in 2006, 83 failed to arrive at their teaching post. In Malawi, to limit refusals and avoid resignations, a teacher is not forced to take a post if housing conditions are inadequate (World Bank, 2007d). It is considered preferable to post the teacher to an area where teacher needs are lower rather than take the risk of him/her resigning. Transfers in the course of employment further accentuate the gaps. In Zambia, after two years of teaching in a rural area, teachers can ask to be transferred to less isolated areas, as long as a post has become vacant. The most desirable posts, primarily in towns, are filled rapidly, while the least popular posts remain vacant, often for long periods. In addition, due to the number of vacancies in some districts, a teacher can be transferred even before the end of the two-year posting. In Eritrea, this type of transfer is also possible. However, due to the shortage of teachers, most candidates for relocation stay in their posts for very long periods.

3.3. Addressing the challenge of assigning teachers to disadvantaged areas

The countries have introduced a number of measures to address the difficulties mentioned above. Some of these, such as post-based or school-based recruitment, have already been referred to but we have seen that they do not suffice to provide the most disadvantaged areas with teachers. Other, often more specific, measures have been introduced.

One of the most widespread measures, in Africa as in other world regions, is to send new recruits to rural locations and to difficult areas. This option was adopted in Madagascar and seems to have borne fruit. In fact, over the last three years, new teacher postings–whether civil servant teachers or not[64]–have mainly concerned the most remote rural areas. While posts in areas where teaching conditions are the least attractive are still difficult to fill, these postings have however allowed a more coherent teacher distribution throughout the territory (EFA, 2008). Deployment of new recruits in rural areas is also practised in Eritrea where, after a time of teaching, teachers can request transfer to more attractive areas. Malawi is moving in the same direction: on applying for a place in a teacher training institution, applicants are informed that they will be assigned to remote areas. In principle, this should ensure that most future teachers would be ready to accept a post in a remote rural area. The disadvantage of this practice is that it is systematically the least experienced teachers who go to the most difficult areas. Moreover, to be effective, it is advisable for rural postings to be a transitory measure and a natural part of the career plan (Gottelmann-Duret, 1998): it is important for teachers not to feel "stuck" in these posts for their whole career but to see them as a way of obtaining a more desirable job eventually. It is also important to ensure that not only the least qualified and/or least experienced individuals apply for and accept these posts. Setting up a system of mentoring by more experienced teachers and head teachers could be an effective mechanism for managing these teachers. In all cases, implementing such a system requires sound management practices, which are still lacking in many countries in the region.

Another practice consists in giving preference to the recruitment of candidates coming from the place of the assignment. In this case, candidates are targeted on the basis of a number of characteristics such as where they come from, or their ability to master local languages, which can facilitate their recruitment in the difficult areas where they are from. In this respect, Malawi envisages establishing quotas per district amongst teacher training college applicants. The deployment of newly trained teachers to their home locality could be facilitated in this way, and remove *de facto* the problem of "house-hunting," which is the principal obstacle to accepting a post in rural areas. However, as highlighted by Azam (2001, quoted by Mulkeen, 2006), educated members of a disadvantaged minority group may view their education as a means of social mobility, and may have no desire to remain in their original

64 The Malagasy government subsidises community teachers.

community once qualified. In Malawi, teachers have expressed the fear of seeing their social obligations becoming more pronounced once back in their community. Rather than their home village, teachers prefer to be assigned to their home district (Mulkeen, 2006). Moreover, there are not necessarily teachers home to all the villages where teachers are needed; this is even one of the characteristics of the remotest areas. It may nevertheless be easier to allocate individuals to these schools when they are originally from that particular province. The example of Central African Republic is quite interesting in this respect. The authorities came up against the difficulty of assigning young teachers trained in Bangui to the provinces, even when they were originally from those areas. Indeed, most young people prefer to stay in the capital where there are more opportunities. As a result, it was decided to set up provincial training centres that recruit locally; the individuals who join these centres know that they will necessarily be assigned to that province. This has made recruitment easier in the provinces.

Community teachers have been recruited on a wide scale in some countries in response to the needs of disadvantaged areas. Community teachers are generally recruited locally, and paid, by parents. While the communities are at the origin of these recruitments on account of the incapacity of governments to recruit teachers in line with schooling demands in some areas, they are now an integral part of the educational policy in some countries (Benin, Madagascar, Chad, etc.) and subsidised by the governments. This is a pragmatic approach to addressing teacher shortages in some areas. Still, this type of recruitment is very much dependent on the dynamics of each community and cannot replace a policy of educational supply enabling every child attend school. The use of community teachers also poses the problem of their qualification, as they are not always up to the minimum required academic standard nor are they trained. Their often-precarious salaries and status also constitute a limit to attracting and retaining people with the adequate profile. This practice is used as a last resort, with the definite advantage of providing schools with teachers and so of ensuring instruction for the pupils. However, it must imperatively be combined with a number of measures such as ensuring that community teachers have a minimum level of qualification and that they benefit from in-service training. It is fundamental to offer them career prospects at a later stage to keep them motivated. Madagascar provides an interesting example in this respect. In the coming years, the Ministry has decided to massively resort to community teachers (cf. Chapter 3), recruited by the community, to compensate for the deficit in civil servant teachers and address the growing demand for schooling. Community teachers must have the minimum required qualification (BEPC), and are offered qualifying training with a view to ensuring quality education and to encouraging them to stay in the profession. Their salary is covered by the Ministry budget and increases little by little according to a

career plan (based on qualifying continuous professional training), without however arriving at the salary level of civil servant teachers (EFA, 2008). The Central African Republic is also envisaging the reclassification of community teachers, after a qualifying training course, in a new status category.

These different measures aim at facilitating teacher recruitment in disadvantaged areas but they come over as temporary measures and not necessarily as a permanent solution to recruiting and maintaining qualified teachers. As already mentioned, these areas run a fairly significant risk of being allocated with unqualified and inexperienced teachers and of having difficulty in retaining them. There is thus a need for additional measures in terms of training and pedagogical support. Financial incentives must also be envisaged to attract and/or motivate teachers. Incentives are a central element of the strategies of attraction and retention of teachers in remote rural areas. Several countries have introduced different incentive bonus mechanisms (hardship, transport or housing allowances, provision of housing), but with often limited impact. Bonuses are often too low to be attractive: in Lesotho, while the hardship allowance is the equivalent of 31% of an unqualified teacher's entry salary, it hardly represents 6% of a qualified teacher's salary. In Uganda and Zambia, it represents 15% and 20% of salary respectively. These levels are still considered unattractive. Moreover, bonuses do not always target the most isolated or rural areas and are not systematically distributed or are done so with some delay. An increase in the amount of the incentives is often offered, but for reasons of financial sustainability, this option may not always be feasible.

In such a context, precise targeting of the allocations becomes crucial both for the efficiency of the incentive system and for its sustainability. The Gambia has thus tested a progressive financial incentive system, based on distance from the main road as the main indicator[65]: the bonus is all the higher the remoter the school, varying from 30% to 40% of basic salary. This mechanism seems to produce the desired effects insofar as an increase has been observed in demands from qualified teachers to go and work in the remotest areas. A survey conducted on teacher trainees showed that one quarter of them would be ready to accept a posting in areas offering a hardship allowance and 95% of them would accept such an assignment if offered upon completion of their initial training (World Bank, 2007b). In a similar perspective, Zambia is considering refining the basic terms of the distribution of hardship allowances, by distinguishing between rural areas and remote rural areas.

65 This initiative, still at the pilot activity stage, is financed by the Fast Track Initiative Education For All Catalytic Fund. It seems effective in attracting and retaining teachers in remote areas. If maintained, it is anticipated that it should rectify the imbalance in teacher allocation in the country (World Bank, 2007b).

Different criteria such as distance from the main road, from the post office, the health centre or the nearest bank are proposed as indicators of school remoteness (World Bank, 2007f).

Beyond financial incentives, provision of housing is also an important factor in a teacher's decision to accept a post in a remote area. However, these measures are particularly costly and difficult for governments to cover. It may prove to be of interest to explore the possibility of partnerships with the communities and local non-governmental organisations (NGOs). Other types of incentive are possible, such as faster promotion for teachers working in the most difficult areas, higher or earlier salary rise, more consequent transport allowances with a view to facilitating travel in the district, etc. Whatever the nature of the incentive, its effectiveness depends on how it is targeted. One of the consequences observed in the countries that have set up or attempted to set up this type of policy is the rising demand from teachers to extend the incentives to other areas. Naturally, any extension of an incentive policy automatically reduces its impact: why go to difficult areas if one can receive very much the same bonus in an urban area? The fact that this would rapidly prove to be too costly for the ministry of education must not be neglected. This type of measure therefore calls for discussions upstream with teachers' representatives.

If financial incentives are to have the desired impact, then the problem of salary payments in remote areas must be resolved. Indeed, one of the characteristics of these areas is that teachers must travel long distances to collect their pay and it is not unusual for this to involve an absence of several days. This results in missed school days for pupils in these areas compared to their counterparts in urban areas. Progress is possible, even in a very difficult context, as shown by the example of the Central African Republic. Indeed, following the situation of conflict in this country, the banking system is inexistent with the exception of a few towns and it is therefore very difficult to pay salaries in the provinces, especially in rural areas. To get round this difficulty, the Ministry of Education has contacted different private entities with operations in the provinces. It turned out that these operators were found to be very interested since they were somehow confronted with the opposite problem, i.e. sending their funds to the capital city. Several mobile phone operators offer innovative systems of credit via mobile phones. To simplify, the teacher would receive a credit message equivalent to his/her salary[66] on his/her mobile phone that he/she

66 These are secure payment procedures.

could collect at one of the phone operator's shops. This type of solution could enable unprecedented coverage of the territory. The Ministry envisages using these techniques starting in the school year 2009-2010. The spectacular development of the mobile phone industry, in fragile states too, could enable innovative and effective solutions to be found for the payment of salaries in rural areas in African countries.

In addition, financial incentives are probably not enough to keep up the motivation of individuals who find themselves in isolated areas and in harsh, poverty-stricken environments. Thus, it is important to ensure relatively effective close support, through the dynamics of the team of teachers at the school level first of all and also through fairly frequent visits from pedagogical advisors and inspectors; this implies specific resources for these areas. Bringing together teachers by area on a regular basis, several times a year, could also contribute to doing away with the feeling of isolation, by favouring exchanges of views with colleagues in similar situations and access to training. Finally, geographic mobility and career prospects, when directly connected to their work in these disadvantaged areas, can be an important source of motivation.

After going over the different existing measures, it very clearly appears that a considerable display of pragmatism and a series of strategies will be required to rectify the imbalance in teacher distribution and to attract and retain teachers in rural areas including the remotest rural areas. The challenge is none other than the generalisation of primary schooling in rural areas and so the achievement of UPE.

4. Teacher absenteeism

Absenteeism is not specific to education in developing countries but is a problem in many sectors, particularly social sectors. Teacher absenteeism is considered as a major problem in many countries in the region in spite of the approximate knowledge of the situation due to patchy data. Indeed, while cases of absenteeism are more or less well registered at school level, they rarely are at provincial level and virtually never at central level. In addition, even when the information is registered, it is rarely used by the school, which is not always obliged to transmit it to the higher administrative levels. Nevertheless, the few studies available on the subject show that teacher absenteeism is a very acute problem with harmful consequences on the education systems. It has first of all a negative impact on the quality of learning (Chaudhury *et al*., 2006; Das *et al*., 2005; Duflo and Hanna, 2005; Michaelowa, 2002). The annual number of hours of instruction is known to be a key factor for pupil learning, and absenteeism tends to significantly reduce the number of hours of lessons actually delivered. In addition, teacher absenteeism results in costs, estimated at between 10% and 24% of primary school education expenditure in developing countries. In Zambia, for instance, annual losses due to absenteeism were estimated at 17 million dollars, i.e. 0.31% of the country's GDP (Patrinos and Kagia, 2007). It is therefore necessary to consider this issue as an important dimension of teacher policy, but with one reservation: the causes of absenteeism are multiple and do not necessarily come under the individual responsibility of the teacher. The aim here is to give as complete a vision as possible of this issue on the basis of available information.

4.1. Empirical elements on teacher absenteeism

Specific surveys on absenteeism, like the PETS[67] surveys, have been conducted in a few countries in the region and provide fairly detailed information on this subject. They suggest relatively high levels of absenteeism, affecting between 13% of teachers in Ghana (World Bank, 2004) and 19% in Madagascar (World Bank, 2008) and Uganda (World Bank, 2007e; Habyarimana, 2006[68]). PASEC and SACMEQ surveys also include questions on absenteeism. Based on the replies of the teachers (PASEC) or of the head teachers (SACMEQ), the resulting information is, however, less reliable than that obtained through the PETS surveys, which observe *de visu* the presence or the absence of the teacher. As recalled by Bonnet (2008), answers may be marred by imprecision[69] and by intentional poor representation, since teachers may be tempted to underestimate their absences. Even so, data show a high prevalence of absenteeism: during the month previous to the PASEC survey, almost half of the teachers in Mali and Niger had been absent for at least one day; this was the case of almost two-thirds of teachers in Chad, Guinea and Mauritania (Bonnet, 2007). In SACMEQ countries, the problem of absenteeism, as perceived by the head teachers, seems just as acute as in French-speaking African countries, although it is

67 Public Expenditure Tracking Survey.

68 In Uganda, a similar survey conducted in 2004, reported a rate of absenteeism of 27% (Chaudhury *et al.*, 2006).

69 Generally speaking, the time of the survey is likely to have a considerable influence on answers. In Madagascar, absenteeism is higher in the rainy season than in the dry season (World Bank, 2008). In Uganda, seasonal differences are also reported: absenteeism is higher at the start of the school year and at harvest time (Habyarimana, 2006, quoted by World Bank, 2007e).

however not possible to precisely estimate the extent of the phenomenon. SACMEQ data show that over half of all pupils (55%) attend schools where the head teacher reports that the problem exists and 8% of pupils attend a school where teacher absenteeism is considered to be high. Some variation does however emerge from one country to another. The problem seems particularly acute in Uganda, where over 20% of pupils are in schools where absenteeism is considered high. Malawi, Mozambique and Seychelles seem also to be faced with a higher prevalence of absenteeism than the other countries in the sub-region (Bonnet, 2007). In West Africa, teachers declare they are absent half a week per month on average. Considerable variation is again observed across countries: the average number of days of absence in the month previous to the survey ranges from 1.4 in Niger to 4.7 in Senegal (Michaelowa, 2002; Bonnet, 2007). The case of Senegal is of particular concern, with teachers declaring to have missed almost one week of school on average during the month preceding the survey. In SACMEQ countries, the number of days lost due to events not connected to school was distinctly lower, at around six days per annum, ranging from 1.9 days in Botswana to 11.5 days in Tanzania (Bonnet, 2007).

4.2. The main causes of teacher absenteeism

It is helpful to recall here that absenteeism has multiple causes and that it does not necessarily fall only under the responsibility of the teacher. Different factors have an influence on absenteeism, some of which are connected to the teacher, others to the characteristics of the class or school, and even to the school environment or yet again to administration. The factors coming into play tend to vary from one country to another, making it difficult to generalise. The most frequently reported reasons for absence[70] are health problems, family reasons (including illness, death, marriage or birth), and strikes (Bonnet, 2007). Another reason often put forward is the time taken for teachers to go and collect their salary. Other reasons are to do with commitment to another economic activity to supplement their income, engaging in further study with a view to more qualifications, lack of motivation, or the fact of living far from the school.

70 In PASEC surveys, head teachers were asked the question and had to choose a maximum of three answers from a series of proposals.

Thus, health problems are one of the main causes of absence in most countries. This is particularly true in countries or areas heavily affected by malaria or HIV/AIDS. While health problems represent almost one quarter of the reasons for absence in Madagascar (World Bank, 2008), in Zambia the rate rises to 35% and to 62% when the illness of close relatives and funerals are added (Das *et al.*, 2005). This problem is accentuated in rural areas, where a visit to a doctor and medical care in town may take several days. While it is still difficult to evaluate the actual impact of HIV/AIDS on absenteeism, it is a fact that it involves long periods of absence (treatment, healthcare for infected relatives, funerals). HIV/AIDS requires different types of measures that go beyond educational policy alone, such as better availability of healthcare locally, reinforced prevention programmes and, in another perspective, the development of a group of replacement teachers in order to ensure continuity of instruction (Das *et al.*, 2005).

Teacher absenteeism also appears to be encouraged by their involvement in secondary activities. PASEC data show that between 23% (Mauritania) and over 70% (Chad) of teachers engage in another moneymaking activity, which in many cases encroaches upon lesson preparation time and even on instructional time.

Table 5.6 : Percentage of teachers with a secondary activity in some PASEC countries

Guinea	Mali	Mauritania	Niger	Chad	Togo
30 %	51 %	23 %	24 %	72 %	28 %

Source: Bonnet (2007)

In many countries, collecting salary is an important cause of teacher absence, particularly in rural areas, even if, once again, it is quite difficult to actually quantify it. In Madagascar, it explains 13% of all absences and involves from between 1.4 days of absence per month in the dry season to 1.8 days per month in the rainy season, with considerable variation from one area to another. Thus in *Mahajanga* province, teachers are absent more than four days per month on average in the rainy season and this registers at slightly under three days in the dry season (World Bank/UNICEF, PETS November 2006 & May 2007). Poor means of communication, hard-to-reach areas and security problems make collecting salary difficult; this is indeed a crucial issue. A similar situation is observed in Lesotho where most teachers have to go and collect their pay at the end of each month; this involves absences of up to three days, sometimes leaving the school with only one, or even no, teacher (World Bank, 2007c). In Zambia, salaries are managed at district level. Teachers working in town have their salaries transferred directly into their bank account while those in rural areas are generally paid in cash at district level. This causes long periods of absence,

particularly in remote areas, due to problems of transport. In Eritrea, the pay departments are particularly decentralised enabling teachers to collect their salary without too much absence from school. Also, they have to do this job during their off-peak periods or after work. In Uganda, as in Malawi, teachers are paid directly into their bank account, reducing delays. However, in rural areas, it is not always possible to have a bank account close to the place of work. It is then necessary to travel to collect pay (World Bank 2007d,e). The situation is still more complicated when the payment of salaries is delayed. Finally, in Tanzania, the irregularity of salary payments poses serious problems. Salary transfers are often delayed at district level, leading to delays in paying the teachers. Furthermore, the fact that pay day is not always known in advance obliges teachers to wait for their salary, sometimes for a whole week, at the pay centre.

In addition, several studies have pointed out that civil servant teachers show higher rates of absenteeism than contract or community teachers. This is characteristic of many French-speaking countries in the sub-region (Bonnet, 2007; Michaelowa, 2002; World Bank, 2008). Michaelowa estimates absenteeism at between 1.5 and 2 days less for contract or community teachers per month. Several reasons can be put forward to explain this observation. First of all, these teachers are often recruited locally, which limits the need to travel for family reasons. Next, community teachers are hired and paid directly by parents; they are therefore under the direct supervision of their employer[71] and do not need to travel to collect their pay. Also, as observed by Michaelowa (2002), a number of these teachers are very eager to change schools and may therefore be more rigorous in their work with a view to obtaining a transfer. One last reason is to do with the fact that contract and community teachers have been working as teachers for a shorter time on average than civil servant teachers and that they could therefore be more motivated and enthusiastic than their colleagues.

The case of unauthorised absences should also be mentioned, corresponding to the failure to adhere to school rules and regulations, and professional ethics. In Madagascar, unauthorised absences represent one quarter of the reasons the most often given to explain teacher absence. Moreover, there are reports of teachers being present at the place of work but not in the classroom in several countries. In Uganda, this concerns one third of all teachers (World Bank 2008, 2007e). These points bring to light teacher management and supervision problems at the school and community level. At the school level, it appears that head teachers are themselves often absent, sometimes more so than regular teachers. In Uganda, the rate of absenteeism for head teachers is apparently 50% higher than that of other teachers, and official obligations are given as the justification for half of the absences (World Bank, 2007e). However, even when they are on the job, head teachers do not always supervise the teachers' work. Besides, they rarely have any effective means of pressure at their disposal to ensure teacher presence in class. Their power may have been reduced in this respect since the payment of salaries directly into the teacher's bank account, as they can no longer withhold salaries in case of bad behaviour by the teacher. In most countries, procedures do exist to punish a teacher who has been repeatedly absent

71 Studies on the question generally establish a negative link between control by parents and the educational community (inspection), and absenteeism (Michaelowa, 2002; Habyarimana, 2006).

with no valid motive. In the vast majority of cases, problems of teacher behaviour are first managed at the school level by the head teacher: verbal warnings followed by a written warning should the teacher re-offend. In serious cases of repeated absence, formal disciplinary sanctions can be brought against the teacher. However, these are often long and laborious: in Uganda, they can take up to four years to be processed. The lengthiness of the process, besides being very laborious, tends to diminish the impact of the sanctions and more fundamentally that of supervision. Fears that such disciplinary measures could deteriorate relations within the school and foster conflict between the teacher and the community also limits their use. As a result, the application of formal sanctions is rare[72]: in Mozambique, in 2005, 7 teachers were dismissed and 23 suspended, from a total teaching force of 46 000 (Mulkeen, 2006). In Malawi, 56 teachers were dismissed in 2006 from a total of 44 000, including 13 for deserting their posts (World Bank, 2007d)[73]. In many cases, the head teacher prefers to have problem teachers transferred. In addition, in many countries, inspection is ineffective, with inadequate human and material resources for ensuring the regular control and monitoring of schools.

Finally, it is generally observed that parents and the local educational community are not always involved in questions of teacher management, either through lack of interest or of means of pressure. In Ghana, a study conducted by Care International in 2003 (quoted by Akyeampong *et al.*, 2007) showed that poor communities felt incapable of holding teachers responsible for their absences, considering them as "untouchable." Through fear of the school not being allocated with teachers, they would also be reticent to lodge a complaint or report this type of problem to the educational authorities. Observations show that in a context of stronger local control (payment of the teacher directly by the parents, regular organisation of parent meetings, existence of financial contributions by parents to the school), absenteeism tends to be less pronounced. The involvement of parents and community could therefore partially compensate for the lack of monitoring and supervision by the educational authorities.

72 However, when sanctions are applied, they can even go as far as dismissal.

73 In Malawi, for the 2004-2006 period, the principal grounds for dismissing teachers were connected to problems of immorality (sexual relations with pupils) (80 cases out of 203), and desertion (50 cases out of 203) (World Bank, 2007d). In Zambia, the most common reasons for disciplinary measures were to do with alcoholism and absenteeism (World Bank, 2007f).

4.3. How can absenteeism and its impact on the education system be reduced?

The multiple causes of absenteeism just mentioned show that there is no easy solution to the problem. Educational authorities can apply two complementary solutions: the first consists in trying to reduce absenteeism when it is connected to administrative measures, and the second in compensating for absences to avoid them harming the proper running of the education system. The latter solution is particularly important in countries facing pandemics.

Teacher absenteeism is a common problem faced by education systems. Of course, this phenomenon may be more or less pronounced according to the country, and the previous section showed that the problem is quite extensive in most African countries. One initial question is therefore to ask if the education systems are equipped with effective devices enabling teachers to be replaced in case of absence. Unfortunately, little information is available on this issue other than the reports of absence as mentioned above. A study conducted in Mauritania on a small sample of teachers, shows that in about 40% of cases absent teachers are not replaced (Jarousse and Suchaut, 2002). The authors also note relatively marked regional differences illustrating the fact that it is urban areas, where absence is in any case less common, which are most capable of organising the replacement of absent teachers. Information on how absences are managed is patchy but this aspect should be the subject of specific attention within the framework of teacher policy since it has direct consequences on the running of the system and its effectiveness.

Thus, different measures aimed at reaching the cause of absenteeism have been implemented in the countries in the region to reduce the phenomenon. Reinforcing the supervision and monitoring of teachers and head teachers is a priority in many countries. It is a matter of reinforcing control and supervision mechanisms at the school level by way of different measures: (i) capacity building of the different stakeholders, especially head teachers and parents, in teacher monitoring, (ii) increase in the number and quality of inspections, and (iii) awareness-raising for the local education community as a whole on the issue of absenteeism and its impact. In Madagascar, within the framework of the AGEMAD[74] programme, the Ministry of Education has experimented closer supervision of pupils and teachers in 15 school districts; it is planned to extend this to all 111 districts by 2010. The development of school improvement plans known as *Contrats programme de réussite scolaire* (CPRS) may also be a relevant tool in the management and control of teachers and pupils. The CPRS brings together all the actors in the school community–pupils, parents, teachers, school authorities, community–with a view to establishing a contract around the pupil's school achievements. The contract is established as a participatory process including a diagnosis of the situation of the school, discussions around the actions to be taken, and decisions as to the responsibilities of each entity. At yearend, the contract is evaluated and updated or redirected. The CPRS is thus a tool for mobilising the different actors in education and a programme device (EFA, 2008;

74 AGEMAD is the application in Madagascar of the AGEPA regional initiative in Africa. This Programme aims at enhancing governance of the sector by establishing mechanisms to monitor and control the tasks to be carried out by the different actors (public, parents, etc.) in education sector operations.

UNICEF, 2008). As for The Gambia, it has set up "cluster monitoring" supervision units. These units systematically check the teacher attendance register kept up by the schools, on their visits. Each unit is in charge of a limited number of schools and has some means of transport at its disposal for making regular school visits. These monitoring units have greatly contributed to improving the situation: they constitute, in this respect, a conceivable solution for monitoring schools and improving quality (World Bank, 2007b).

In addition to this type of measures, it is also important to reinforce the statistical monitoring of teacher presence and of effective instructional time. At the school level, this means systematically registering absences and working hours. If they are to serve a purpose, these data must be analysed and monitored at the different hierarchical levels, from the school up to the central level. This requires management and information systems capable of capturing and handling this type of information on a regular basis. National PETS-type surveys can also be an effective monitoring tool for those in charge of education.

Applying sanctions for unjustified repeated absence can also be considered as an option. Withholding salary is used in this framework by some countries. In Zambia, the district authorities can temporarily block absent teachers' salaries, whether these are paid in cash or electronically. However, the introduction of direct transfers has limited the range of these sanctions, as several months are now needed for them to take effect. In The Gambia, for similar reasons, salary sanctions are rarely employed: in 2006, there were 295 cases for 2 400 teachers. However, the measure seems effective: once the salary has been blocked, the teachers at fault reappear (World Bank, 2007b). On a parallel, some people recommend developing codes of good conduct for teachers. These codes clarify expectations in terms of good conduct and performance. This type of document has been useful in making teachers more conscious of these issues in South Eastern Asia (Hallak and Poisson, 2005 quoted by Patrinos and Kagia, 2007).

Chapter 5

Towards an overall vision of teacher matters

The subject of salary payment is still a major challenge, especially in rural areas. Operations have been centralised and bank transfers established in many countries to reduce delays. Other countries, like Madagascar, have opted for a device using postal cheques, due to an inadequate banking system (EFA, 2008). Even so, there is still the problem of remote rural areas. The example of Central African Republic, mentioned earlier, which is based on mobile phone technology could be of inspiration for other countries in managing teacher pay in rural areas.

Absenteeism is complex and has multiple causes. There is neither a single solution nor a simple solution to reduce its scale and consequences. However, some measures tend to produce interesting results, even though the information available is still too thin on the ground to have a full vision of the phenomenon. This important aspect of educational policy deserves special attention within the framework of the everyday management of the education system but also of additional studies for a better understanding of the issue.

5. Keeping motivated teachers in the education system

The extremely rapid emergence of new categories of teachers in African education systems has turned traditional teacher policies upside down. This restructuring of the teaching profession, which is a direct consequence of the countries' commitment to UPE in a context of stiff constraints, calls for new teacher policies. The issue of retaining teachers, especially the most competent teachers, is accentuated and becomes one of the key challenges for educational policies today. In the present context, marked by increasing pressure for quality education and an increasingly difficult working environment for teachers (with rising class size and the massive arrival of children from the most disadvantaged backgrounds), the questions of motivation and commitment take on a new meaning. While the subject has been little explored, the few analytical elements available show that the teacher's motivation, in the same way as his/her competencies and skills, is determinant for effective teaching. It is seen to have a positive influence on pupil learning achievements through the efforts the teacher puts into his/her work and by reducing teacher absenteeism (Bernard *et al.*, 2004; Michaelowa, 2002).

The general context of the restructuring of the teaching profession and the growing pressure on teaching staff suggests re-examining the prospects open to those joining the profession. How can it be hoped to keep motivated and dynamic teachers in the profession without a clear vision of their career prospects? The previous chapters have often pinpointed inadequacies in this area, which make teacher policies relatively fragile in some countries.

5.1. Teacher motivation

Teacher motivation therefore seems to be a key issue since it can have a direct influence on the quality of learning, teacher absenteeism and attrition. However, it is not easy to apprehend this aspect. Measuring motivation is indeed a fairly delicate exercise. PASEC attempts to appreciate this aspect through professional satisfaction. When asked the question as to which profession they would choose if they had to make a new professional choice, almost 73% of teachers in Guinea said that they would once again choose the teaching profession, compared to hardly 40% in Senegal and 46% in Côte d'Ivoire (cf. table 5.7). The situations are thus fairly different from country to country. Job satisfaction also seems lower among civil servant teachers than among contract or community teachers (Bonnet, 2007).

Chapter 5

Towards an overall vision of teacher matters

Table 5.7 : Indication of teacher satisfaction in French-speaking Africa

Country	% of teachers who would choose the same profession
Burkina Faso	57 %
Cameroon	56 %
Chad	60 %
Côte d'Ivoire	46 %
Guinea	73 %
Madagascar	65.5 %
Mali	65 %
Mauritania	54 %
Niger	59 %
Senegal	41 %

Source: Bonnet (2007), Michaelowa (2002)

Some students currently consider primary school teaching as a last resort, or else as a springboard towards teaching at higher levels or even towards other professions. A survey carried out at the teacher training college in Lesotho (Lesotho College of Education) showed that, of the students intending to teach in primary education, one third would have opted for secondary education or for another profession: they had to go in for primary education due to insufficient initial qualifications. In The Gambia, a similar survey showed that only 18% of future primary school teachers declared wanting to teach at this level initially. The vast majority of these students hope to further their studies to be able to teach at higher levels of education or even change to another profession (18%). In addition, few of them envisage a long-term commitment in the profession: only 43% in The Gambia and 40% in Lesotho (World Bank, 2007b,c).

In one of the rare quantitative studies on this aspect in sub-Saharan Africa, Michaelowa (2002), using PASEC data[75], shows that teacher satisfaction is partly connected to working conditions. Indeed, having to teach in overcrowded classrooms, in rural areas and in schools without electricity all have a negative effect on teacher satisfaction. Moreover, as highlighted in the previous chapter, the teacher's level of studies after the general certificate of upper secondary education (*Baccalauréat*) has a significant and negative impact on teacher satisfaction. One plausible explanation is the gulf between the professional aspirations of these teachers and the reality of teaching. Another result is to do with the limited role of the level of salary on teacher satisfaction. Without overlooking the role of salary, this result does show that salary is not enough in itself for teacher satisfaction and therefore suggests that the subject of teacher motivation should be tackled from a broader perspective and more particularly within the framework of career advancement opportunities.

75 These data concern Burkina Faso, Cameroon, Côte d'Ivoire, Madagascar and Senegal.

5.2. The professional development of teachers

One way of impacting motivation and of reducing absenteeism and attrition phenomena is to provide teachers with attractive career structures. Aside from pay, which is still a major issue for social dialogue, the opportunities open to teachers for promotion and personal and professional development are also important. In this respect, specialists consider that the professional development of teachers should be considered as a continuous process starting with the teacher's initial training and ending when the teacher retires (Villegas-Reimer, 2003). This approach requires major changes to training and promotion policies for existing teachers.

The modern concept of a teacher's professional development is thus not limited to salary progression but encompasses continuing training possibilities throughout his/her professional career, with a multiple objective. Firstly, the aim is to enable the teacher progress in his/her professional practice and so enhance the effectiveness of his/her teaching. The fact of benefiting from a supportive framework shows the teacher that he/she is accompanied throughout his/her career and this can but have a positive influence on his/her motivation. Of course, the training courses that the teacher has successfully attended must be taken into account in his/her career progression to reinforce the motivating effect. It should not be forgotten that it is not only training that is important but also the implications of training on classroom practices. So, contrary to what is observed in the vast majority of countries at the present time[76], the quality of the instruction delivered by the teacher should be one of the key criteria when making decisions on promotion[77].

One of the major obstacles for teachers in their career is the lack of opportunity for promotion. Promotion is automatic within the same grade, but is rarely so from one grade to another and even less so for access to promotional posts (senior teacher, deputy head and head teacher, pedagogical advisor, etc.). The reasons are to do with the limited number of posts available and the promotion processes, which are in many cases competitive, even though the lack of transparency in these processes is a recurrent problem in many countries and the objectivity of decisions is sometimes questioned. There are a limited number of promotional posts due to the pyramidal structure of jobs in the schooling system. In Zambia, 83% of teachers in primary schools are employed at the basic level, 8% as senior teachers, 4% as deputy heads and 5% as head teachers.

It is probably not very appropriate to envisage access to administrative functions as the ultimate objective of the system of teacher promotion. After all it is preferable to consider the objective as being to retain motivated teachers in the classrooms. In this perspective, teachers can quite legitimately expect salary increases that take into account their experience, the rise in their qualifications and the work put in with their pupils. That implies that the salary scale should provide for progression

76 Zambia is an exception as teacher performance is an explicit criterion of selection. This country has a teacher evaluation system featuring an annual assessment by the school head and an officer representing the Ministry at district level.

77 The evaluation by several people, if well supervised, as for recruitment as presented at the beginning of this chapter, would provide a framework for this type of promotion.

according to precise criteria. At the present time, in most countries, teachers employed by the government are paid on civil service salary scales, composed of different grades and a series of echelons, generally between 7 and 10, within each grade. The initial salary level usually depends on the level of qualification: the more qualified the person, the higher is the starting grade for entering his/her post, and so, the higher the salary. The salary increases that follow do so automatically on an annual basis, until reaching the cap of that particular grade. The next step consists in a promotion for access to another grade, corresponding either to intermediary grades within the same status, or to posts of senior teacher, deputy head or head teacher. In the absence of promotion, there are no further salary increases once the cap has been reached. In most countries, the salary scale is fairly limited. Salary increases for a qualified teacher are low within the same grade, varying from 11% to 18% over a period of 7 to 10 years in 5 English-speaking African countries. The gaps are more significant when changing grades; thus a head teacher in the highest grade earns 2.4 times more than a qualified teacher in Uganda and 3 times more in Zambia. Malawi is an exception with a particularly open salary scale since a head teacher in the highest grade earns almost nine times more than a qualified teacher. It is obvious that this type of pay structure attracts teachers to administrative posts rather than encouraging them to stay in their classrooms. Teacher policies must be very attentive to this aspect since promotion in the teaching profession should encourage teachers to continue teaching.

Geographic mobility must also be taken into account as this represents a major management issue. Aside from the specific incentives (bonuses, housing, etc.) that teachers should benefit from in difficult areas, and particularly in remote rural areas, they should be allowed geographic mobility after serving a given time in the area (3 to 5 years), if so desired. Quicker career progression in the most difficult areas could contribute to making these areas more attractive. The difficulty of having teachers serve in remote areas has already been brought up in this chapter but it is useful to stress here the idea of taking into account in the teacher's career advancement the time worked in these specific areas.

Nevertheless, the most delicate challenge in terms of professional development is without doubt the continuous access to training for teachers. Taking into account the situation described in this study, it is clear that the training systems in force must be completely overhauled to reach this objective. It does indeed seem particularly difficult to provide training for personnel in posts in rural areas where efforts need to be concentrated. Possibilities do however exist, as explored in a number of contexts. Distance education is one of the priorities to be explored in terms of continuing professional training. Teacher networks are another interesting possibility; they consist in bringing teachers together to enable them share their professional experience and to benefit from training. Although teachers are often behind the initiative for this type of network in developed countries, it is easy to imagine that these networks could be organised and financed by the school administration at local level (school district/inspection). For teachers in remote areas, these meetings have the advantage

of putting an end to their isolation by giving them the opportunity to share their experience with teachers in similar situations. To be effective, the meetings must be regular (one per term) and so involve travel and subsistence costs. However, to avoid impinging on instruction time, they should preferably be held during the school holidays, which may prove difficult for teachers to accept. To make up for this downside, the training aspect of these meetings could be highlighted and taken into account in the teachers' career progression as mentioned above. It is of course essential to study the financial implications and perhaps target the areas for establishing these networks to avoid excessive costs at national level. In addition, this type of device can benefit from the input of experienced teachers who could take on pedagogical responsibilities for schools and administrative areas. These senior teachers or mentors, who have experience and if possible have followed specific qualifying training to support other teachers, would moreover open up a new path to promotion for the most dynamic teachers. Once again, countries should be pragmatic and combine a variety of measures. The different possibilities sketched out here are not new even if they have not necessarily been combined; it is their financing that has often been lacking.

Furthermore, it is becoming urgent, as already mentioned, to deal with the subject of career management for non-civil servant (community or contract) teachers. Although they carry out similar tasks to civil servant teachers, their employment conditions are much more precarious than their civil servant counterparts, whether in terms of pay, job security, opportunities for promotion, or access to training. By and large, little attention is given to their lot. It is essential to accompany these people and to "integrate" them through regular continuing training activities. Offering them genuine career prospects, as for civil servant teachers, is imperative to avoid their motivation from being progressively undermined. Initiatives are being taken in this direction in several countries. One example is the promising initiative launched in Madagascar by the Ministry of Education, which is working on a career plan for non-civil servant teachers with progressive levels of qualification and corresponding salary increases (without however reaching the level of salary of civil servant teachers). Starting 2012, salary increases will be a function of the credits obtained by the teacher in continuing professional training, of his/her seniority and performance.

Chapter 5

Towards an overall vision of teacher matters

Governments must carefully monitor attrition rates for a correct evaluation of hidden costs resulting from teacher loss, particularly those connected to non-civil servant teachers for whom higher than average attrition rates are not always taken into account in cost/benefits analyses. In some countries, a 1% reduction in rates of attrition would suffice to obtain the additional number of teachers required to accomplish the goal of UPE. Providing good teachers with financial incentives so that they stay in the teaching profession would certainly be less costly than training lots of new teachers.

Teacher policies that tackle the profession of teaching as a whole are therefore required in order to attract and retain motivated teachers. It is up to each country to conduct the necessary reforms by counterbalancing resources with local needs (OECD, 2005). It appears clearly here that the professional development of teachers is not of secondary importance. Besides the fact that it addresses their professional ambitions and may therefore facilitate a social consensus in the often crisis-prone education systems, continuing professional development also comes over as a factor of effectiveness for the education systems contributing to the achievement of UPE.

6. The need for a global approach to teacher matters

The diversification of status categories, salaries and teacher profiles resulting from the policies implemented after the Dakar Forum in 2000 to achieve UPE in a context of heavy financial constraints raises the question of the social sustainability of teacher policies in the coming years.

This chapter has covered the principal dimensions of teacher matters: recruitment, training, deployment, absenteeism and professional development. There are many challenges for each of these dimensions in African countries where recent developments in the structure of the teaching profession have disrupted traditional approaches often inherited from colonial times. The necessary innovations will imply trade-offs to be backed up by evaluations of existing situations and of possible options. However, we can but observe the lack and above all the fragmentation of the information required for processing teacher-related decisions. It is therefore necessary to improve information systems while encouraging research on the setting up of new training and management devices. Local innovation should also be assessed in order to promote the most effective devices. The different examples given in this chapter illustrate that many innovative solutions have already been formulated to address the challenges of some aspects. In this respect, a pragmatic approach seems essential but demands a rigorous evaluation of innovation.

However, addressing teacher matters is limited at present by the fact that data is fragmented and so by the absence of an overall vision on the part of decision-makers. Now, not only are the different dimensions of teacher matters, as seen in this chapter, closely interconnected but also a global vision is essential to enable the emergence of new policies in line with the challenges. A simple example is that of pre-service training for teachers, which is generally the subject of much attention, particularly due to the increasing number of new teachers to be trained. If attrition is not taken into consideration, that is to say teachers who drop out of the profession, then this may result in a much more costly training policy than really necessary. Indeed, if 100 teachers are trained and 20 disappear in a few years time, 20% more people than necessary will have to be trained to have the desired number of teachers in posts; whereas it may be possible to resolve the causes of attrition, at least partially, via inexpensive management measures if one takes the trouble to analyse the phenomenon. To retain motivated teachers, it is also preferable for them to have attractive career prospects and also stimulating professional support with access to continuing training throughout their professional life. Moreover, geographic mobility may be a determining factor for young teachers who find themselves posted to remote areas at the start of their career. Handling the different aspects separately, as is currently the case in most African education systems, can only lead to little effective

Chapter 5

Towards an overall vision of teacher matters

or even counterproductive policies in the perspective of UPE. In other words, in a difficult economic context characterised by a lack of resources in most countries, without an overall assessment of the impact and also of the cost of the different lever possibilities for educational policy, miracle solutions can hardly be expected to emerge to meet the teacher challenge.

It is thus urgent to promote a global vision of teacher matters. In this perspective, it would be most useful to develop overall teacher-related diagnoses at country level. This type of participatory diagnosis would provide a complete and shared vision of teacher matters and should give rise to new policies capable of meeting the challenges faced by African education systems on the road to UPE.

At the midway point for achieving the Dakar goal of universal primary education (UPE), teacher matters are a burning issue in Africa, as witnessed by the place taken up by this topic today in international conferences devoted to Education For All (EFA). Teacher matters are clearly at the heart of all considerations on the expansion of education systems, whether pedagogical considerations as to the quality

Conclusion

of learning, social concerns related to the more or less equitable character of education provided in terms of quality and quantity, or questions raised as to the financial sustainability of the efforts still to be accomplished in terms of recruitment simply to reach UPE. The lag accumulated in enrolments, the still very high rate of demographic growth and the limited financial resources to be devoted to other urgencies in terms of human and economic development,

Conclusion

make teacher matters the major challenge on the way to UPE. The elements included in this study have made it possible to trace the broader outlines of this challenge while revealing distinct country specificities.

Most countries will be able to meet the quantitative challenge, albeit considerable (2.4 million new teachers to be recruited from now until UPE in the 41 countries studied here), if they maintain the levels of recruitment observed from 2000 to 2005, throughout the whole period. In a context characterised by a multitude of physical, economic, financial and social constraints, this positive observation is in itself reason for hope. However, succeeding over a long period what was possible in the initial years following the Dakar Forum is still a formidable challenge. Indeed, the 2000-2005 period corresponds to an unprecedented expansion in recruitment and enrolments in Africa under the joint effect of significant government and donor mobilisation, but also of an in-depth reconsideration of teacher policies. While it was not possible to distinguish the effects of each of these two causes here, it was nevertheless possible to clearly point out the changes that have taken place in teacher policies, and especially the efforts made to significantly increase recruitments while striving to control the payroll. These efforts will therefore have to be prolonged both at national and international levels in order to achieve UPE. As already seen, it will not be enough to simply continue with the activities that were conducted in the face of urgency; the new directions taken thanks to the dynamics following the Dakar Forum have now to be translated in well constructed and sustainable policies.

Beyond country specificities that are to be kept in mind at all times, there have been two distinct trends in the two main linguistic areas. While English-speaking Africa has given preference to the recruitment of initially less qualified teachers, French-speaking Africa has massively recruited status categories outside the civil service under a variety of different names. Recourse to community teachers, enabling to compensate for low levels of recruitment during the periods of structural adjustment, opened the way for these new teacher policies at the same time as it became necessary to proceed with a massive relaunch of recruitments. This downward pressure on salary cost is the continuity of a long-term trend, especially in French-speaking Africa, of adjusting civil servant salaries to the realities of national economies. It also corresponds to the fact that teacher salaries constitute a major adjustment variable in education system expansion policies, on account of their weight in national budgets but also of their being incorporated in a more global trade-off where allocation levels are determined for other factors[78] affecting teaching conditions and the quality of learning and which have also suffered a great deal from budget restrictions in the 1980's and 1990's.

78 Such as average class size, allocation of educational materials and also resources needed for financing administrative activities and pedagogical supervision.

The fall in (relative) average teacher salary observed today results from the coexistence of widely differing levels of salary reflecting the heterogeneity of status categories. At the two ends of the scale, there are community teachers who have particularly low levels of salary and traditional teachers recruited in the periods before the sharp expansion of the education systems as illustrated by civil servant teachers in French-speaking Africa. In between these two situations, there are categories of contract teachers, temporary teachers and volunteers, whose salaries, status and career prospects greatly vary from one country to another.

In each country, this heterogeneity is the cause of tension and it is worth attempting to reduce it. The new status categories, often introduced as a matter of urgency, have tended to account for the major share of recruitments in many countries meaning that these new teachers are in the majority in some countries. The coexistence of a variety of status categories, implying considerable differences in salary, is a major source of tension. Some governments are already questioning these policies under pressure from these new teachers who all aspire to the higher salaries of their colleagues. It is therefore clearly urgent to manage the issue of status heterogeneity, which is already at the origin of social conflict. The issue of the sometimes high number of community teachers, whose salary levels can be extremely low, must also be considered. Manifestly, while the current average (relative) salary for all categories taken as a whole more or less constitutes the reference for pursuing recruitment efforts needed to achieve UPE in many countries, the future challenge, with regard to this reference, is to succeed in defining genuine teacher policies that include these new teachers in a complete professional framework.

It is indeed urgent to rebuild the teaching force on a truly professional basis encompassing explicit selection criteria, clear definition of salary prospects, and possibly statutory prospects, but also professional training, which is the most neglected element of recent policies. The results referred to in this study on the evaluation of pupil learning do not provide any apparent key to standardising these different dimensions. It has however been noted that a rigorous initial selection of teachers is essential to avoid recruiting those who are clearly not up to minimum requirements. These results also demonstrate that recourse to non-civil servant teachers has not led, at least in the short term, to evidence of these teachers being less able to make pupils progress. They highlight above all the poor knowledge available on the effectiveness of the many alternative options for professional training. While the scale of the challenge sways more in favour of mixed forms of in-class training, distance learning and close supervision, factual elements are lacking which would enable a more precise definition of methods and content.

Conclusion

Generally speaking, the different elements of teacher policy seem poorly documented. Aside from the scarcity of evaluations concerning aspects likely to affect the pedagogical effectiveness of teachers mentioned earlier, teacher populations themselves are not well documented whether in terms of composition or progression. Estimations of teacher needs for achieving UPE come up more particularly against the relative lack of information on attrition rates and are thus based on fragile assumptions. In the same way, this study has also shown that it is difficult to precisely appreciate the existence of the necessary human resources for sustainable recruitment policies (existence of a pool) and even more difficult to situate proposed salary conditions, particularly within the framework of the new status categories, compared to those on offer on the labour markets. A better knowledge of the teacher population, their working conditions, the way they live and practise their profession, as well as their economic position compared to the other job opportunities they could aspire to, would no doubt constitute important ingredients for defining more effective teacher policies.

These analyses of teacher issues point to the need to work at the level of each country. Beyond the regional trends that may have been observed, there is seen to be considerable variation from country to country on all aspects affecting teacher matters. This is the case for the intensity with which new recruitment policies have been implemented and also for the concrete solutions adopted. It is obviously at country level that information can be mobilised for defining new policies. Fine analysis of the teaching population must enable the precise anticipation of recruitment needs but also allow greater control over factors that affect the attractiveness of the teaching profession. Better statistical monitoring of the teaching population must provide detailed information on attrition and its different components (retirement, resignation, sickness, etc.) and also contribute to studying actual assignments. Employment surveys must also be taken advantage of to look precisely into the acceptability of proposed salary conditions, although the fact that the expansion in enrolments in Africa now essentially concerns rural areas should be taken into account. In the same way, when anticipating future recruitments, the existence of a sufficient number of candidates must be precisely studied and special attention given to secondary education, which should be the source of supply in both quantity and quality. Finally, the dialogue necessary for the successful transformation of policies decided on as a matter of urgency into long-term sustainable policies ensuring the provision of motivated and trained teachers, must be initiated at country level.

This dialogue must be established on a transparent basis with the help of the information available on needs and the possibilities of national and international financing. International comparative data are obviously important for this dialogue since they shed light on general issues as well as on the specificity of solutions adopted by the different countries. Above all, in this perspective, country sectoral simulation models are an essential element in situating teacher matters within the overall needs related to educational policy. This is where the other key goals of EFA should come into play, such as pre-school education and adult literacy, but also those resulting from the development of post-primary enrolments; the intra-sector trade-off between expenditure connected to teachers and that related to the other factors affecting the teachers' conditions of service as well as the quality of learning can be tackled within the framework of these models.

One of these elements deserves special attention: the administrative and pedagogical management of teachers. Reinforcing the administrative management of teachers is clearly a priority with a view to setting up true teacher policies, which would define the conditions of recruitment, assignment, mobility and individual career management. Genuine progress is needed here as demonstrated by the incoherence in assignments in many countries, and particularly the excess staff frequently observed in schools in urban areas.

The improvement, or the implementation, of proper pedagogical management of teachers should also be high on the list of priorities in these new teacher policies. As seen in Chapter 4, the main factor for improving the quality of learning, beyond the professional characteristics of teachers, lies with the improvement of their routine activities. Better pedagogical effectiveness and a reduction in the class-effect through the continuous improvement of practices and activities must be a permanent goal for the supervisory body (inspectors and head teachers). Generally speaking, uncertainty as to effective practices, which make it difficult *a priori* to define professional training for teachers must lead to transparent and participatory research into pedagogically effective solutions. The implementation of new teacher policies should therefore go hand in hand with the promotion of national evaluation systems involving, through the local management of quality, all actors with the aim of defining the ways and means of raising the level of pupil learning.

Conclusion

There is significant international mobilisation around the question of these new teacher policies today. First of all, this comes in the form of advocacy designed to convince donors to pursue the efforts accomplished in the years following the 2000 Dakar Forum, and which are essential for simply maintaining the recruitment levels observed during that period. Such mobilisation, which is threatened by the present context of a global crisis, must at least be in line with the major transformations, and their social consequences, that many governments have implemented and that now require sustainable management. Beyond the financial aspect, there is clearly a need for technical support to develop the analyses and tools necessary for these new policies in each country. As already seen, this concerns improving knowledge about the teaching population and recruitment needs; it also concerns vital evaluation work to determine better administrative and pedagogical practices with the ultimate aim of improving learning achievements. This mobilisation should materialise at the level of the highest EFA monitoring authorities by the definition of an action plan coupled with concrete proposals, and a follow-up committee; it should also contribute to making the UNESCO Teacher Training Initiative for Sub-Saharan Africa (TTISSA) more operational; this initiative could play a driving role in the promotion and sharing of knowledge on teacher matters.

The teacher-related measures set up as a matter or urgency as of the year 2000 to address the challenge of EFA now call for sustainable solutions. The tension observed in some education systems illustrates the limits of what are often piecemeal policies not capable of handling the issue of the professional development of teachers and of providing them with career prospects. Nor should the pressure of salary claims, which seem to prompt some governments to call into question a number of measures related to status, be under-estimated. More than ever, national and international consensus is needed on teacher matters to ensure that they drive rather than hinder the achievement of UPE. It will not be easy to build this consensus. Improving knowledge about teacher issues is without any doubt one of the principal avenues to be followed for promoting the necessary dialogue.

Appendixes

Appendixes

Table A1.1: Annual growth rates in school-age population 2005-2015 and 2015-2020

	Anticipated annual growth in school-age population				Average annual growth in primary enrolments between 2000 and 2006
	2005-2015		2015-2020		
	Number of children	Rate of growth	Number of children	Rate of growth	
Algeria	20 319	0.5%	52 707	1.3%	-104 874
Angola	60 220	2.8%	63 480	2.5%	NA
Benin	41 312	2.6%	39 329	2.1%	60 376
Botswana	-307	-0.1%	2 563	0.8%	-738
Burkina Faso	69 418	2.6%	70 882	2.2%	97 856
Burundi	49 701	3.3%	92 660	4.7%	114 848
Cameroon	47 481	1.6%	8 028	0.2%	68 658
Cape Verde	1 206	1.5%	647	0.7%	-2 094
Central African Republic	8 412	1.2%	9 047	1.1%	-7 715
Chad	56 653	2.9%	53 808	2.2%	69 542
Comoros	2 596	1.9%	852	0.5%	2 249
Congo	13 297	2.1%	4 073	0.6%	23 218
Côte d'Ivoire	30 897	1.0%	29 147	0.9%	11 467
Democratic Rep. of Congo	426 672	3.6%	467 971	3.1%	NA
Djibouti	363	0.3%	605	0.5%	2 211
Egypt	108 230	1.1%	61 414	0.6%	355 307
Equatorial Guinea	1 547	2.2%	1 935	2.3%	-667
Eritrea	26 414	3.8%	17 477	2.0%	13 114
Ethiopia	335 707	1.8%	362 258	1.7%	795 642
Gabon	378	0.2%	1 158	0.6%	8 392
Gambia, The	6 072	2.2%	3 542	1.1%	5 999
Ghana	37 196	1.0%	21 119	0.6%	147 962
Guinea	36 530	2.3%	37 855	2.0%	80 883
Guinea-Bissau	10 555	3.4%	12 435	3.1%	NA
Kenya	206 746	3.2%	137 626	1.7%	299 465
Lesotho	-390	-0.1%	-581	-0.2%	1 970
					·····>

	Anticipated annual growth in school-age population				Average annual growth in primary enrolments between 2000 and 2006
	2005-2015		2015-2020		
	Number of children	Rate of growth	Number of children	Rate of growth	
Liberia	30 737	4.3%	28 157	3.0%	12 180
Libyan Arab Jamahiriya	15 770	2.1%	5 086	0.6%	-2 150
Madagascar	53 052	1.8%	44 457	1.4%	278 281
Malawi	76 338	2.2%	68 085	1.7%	-19 734
Mali	63 494	2.8%	83 691	3.0%	96 524
Mauritania	9 195	1.8%	3 825	0.7%	21 059
Mauritius	-980	-0.8%	-254	-0.2%	-2 540
Morocco	-8 903	-0.2%	31 454	0.9%	20 566
Mozambique	102 228	2.4%	21 613	0.4%	268 592
Namibia	-3 626	-1.0%	3 772	1.1%	1 014
Niger	97 167	3.7%	108 532	3.2%	94 113
Nigeria	449 268	1.8%	305 792	1.1%	777 243
Rwanda	45 439	2.8%	69 811	3.4%	108 884
Sao Tome and Principe	294	1.2%	53	0.2%	600
Senegal	40 698	2.0%	22 930	1.0%	62 749
Sierra Leone	23 509	2.4%	24 271	2.1%	127 983
Somalia	53 469	3.1%	38 049	1.8%	NA
South Africa	8 552	0.1%	-38 043	-0.5%	10 242
Sudan	65 690	1.1%	45 548	0.7%	119 577
Swaziland	-1 005	-0.5%	981	0.5%	2 383
Togo	23 479	2.1%	14 407	1.1%	21 354
Tunisia	-4 262	-0.4%	3 741	0.4%	-47 898
Uganda	215 072	3.1%	271 397	3.1%	160 942
United Rep. of Tanzania	235 564	2.9%	108 799	1.1%	733 825
Zambia	41 900	1.7%	30 890	1.1%	217 813
Zimbabwe	-10 981	-0.5%	16 810	0.7%	-744

Source: Population projections from the United Nations Population Division, 2006 revision; school data from UIS and different CSRs

Appendixes

Table A1.2: Assumptions underlying existing models of projected teacher needs

	UIS 2006	Colclough & Lewin, 1993	Mehrotra & Buckland, 1998	Brossard & Gacougnolle, 2001	Bruns, Mingat & Rakotomalala, 2003	Unesco-Breda, 2005
Coverage	Global	97 countries	Global	Global	47 countries	52 African countries
Base year	2004	1990	1994	1998	2000	2003
General target	NER=100%	GER=100%	NER=100% and GER=100%	NER=100%	PCR=100%	PCR=100%
Repetition	10% or 0.5* specific country rate	0.25* specific country rate	No assumption	Implicit assumption based on past trends	Current if <10%, otherwise 10%	Current if <10%, otherwise 10%
Pupil-teacher ratio (PTE)	Current if ≤40:1, otherwise 40:1	0,85* initial PTE for 2000	Current, 40:1 and 30:1	Current, 0.9* initial PTE for 2015	40:1	Current if <40:1 otherwise 40:1
Private education	Included	Reach 10% by 2000	Included	Included	10%	Current if 0% or >10%, otherwise 10%
Population data source	UNPD estimation‡, 2004 revision	World Bank estimation	Does not take population growth into account	UNPD estimation‡, 1998 revision	World Bank estimation	UNPD estimation‡, 2002 revision
Attrition	5/6, 5/8	National rate	No assumption	No assumption	No assumption	No assumption

Source: UNESCO-UIS (2006)

‡ UNPD: United Nations Population Division

Appendixes

Table A1.3: Annual needs for new teachers

Country	Annual needs for new teachers						
	Total needs between 2008 and UPE	Average 2008-2010		Average 2011-2015		Average 2016-2020	
		Overall	Public	Overall	Public	Overall	Public
Burkina Faso	79 719	5 165	4 450	5 955	5 173	6 890	6 044
Burundi	47 787	2 658	2 400	2 566	2 268	5 397	4 840
Cameroon	62 652	4 536	3 465	5 115	3 964	4 694	3 746
Central African Republic	18 019	1 313	1 097	993	830	1 823	1 545
Chad	43 405	2 591	1 793	2 831	2 042	4 295	3 192
Comoros	3 308	319	273	281	241	189	162
Côte d'Ivoire	82 479	6 371	5 323	5 961	5 037	6 712	5 727
Eritrea	23 911	1 593	1 424	1 925	1 719	1 902	1 699
Ethiopia	363 774	19 164	16 627	24 693	21 348	36 563	31 579
Guinea-Bissau	8 720	437	346	600	481	882	719
Madagascar	46 436	3 214	2 680	3 025	2 596	4 333	3 703
Malawi	31 701	3 000	2 558	2 270	1 891	2 270	1 891
Mali	55 256	3 712	2 158	3 494	2 157	5 330	3 402
Mauritania	10 559	552	449	779	636	1 002	815
Mozambique	106 300	5 928	5 485	7 301	6 735	10 402	9 587
Niger	85 685	5 697	5 436	6 577	6 247	7 141	6 745
Rwanda	31 891	1 530	1 395	2 224	2 045	3 236	2 978
Senegal	46 968	3 377	2 860	3 574	3 030	3 793	3 218
Sudan	195 376	15 752	11 814	15 620	11 280	14 004	9 597
Uganda	191 993	8 130	7 314	11 736	10 590	21 785	19 727
							·····>

Country	Total needs between 2008 and UPE	Annual needs for new teachers					
		Average 2008-2010		Average 2011-2015		Average 2016-2020	
		Overall	Public	Overall	Public	Overall	Public
Benin	26 819	2 793	2 363	3 688	3 156		
Cape Verde	1 369	175	175	169	169		
Congo	9 287	1 155	682	1 165	783		
Gambia, The	4 858	637	577	589	524		
Ghana	50 097	6 299	4 713	6 240	4 669		
Guinea	28 473	3 137	2 421	3 813	3 019		
Lesotho	4 866	639	629	590	580		
Morocco	37 328	3 484	2 742	5 375	4 374		
Namibia	5 186	589	574	684	666		
Nigeria	335 126	39 480	NA	43 337	NA		
Sao Tome and Principe	237	30	30	29	29		
Swaziland	3 228	367	367	425	425		
Togo	15 530	1 997	1 071	1 908	1 050		
United Rep. of Tanzania	140 573	13 877	12 571	19 788	18 086		
Zambia	49 788	5 504	5 063	6 655	6 150		
Algeria	11 941	3 980	3 980				
Botswana	2 152	717	595				
Egypt	41 711	13 904	11 921				
Kenya	49 816	16 605	NA				
Mauritius	455	152	112				
Tunisia	2 765	922	709				

Source: Authors' calculation based on UIS and national data

Appendixes

Table A1.4: Teaching force

Country	Year	Current value		2010		2015		2020	
		Overall	Public	Overall	Public	Overall	Public	Overall	Public
Burkina Faso	2006	30 723	26 092	46 259	39 509	67 713	58 245	90 671	78 552
Burundi	2006	25 363	24 704	34 264	32 682	41 743	38 966	61 335	56 315
Cameroon	2006	67 081	48 320	73 456	53 631	85 307	63 359	93 193	70 433
Central African Republic	2008	6 000	5 040	7 397	6 238	11 542	9 857	18 040	15 695
Chad	2005	19 989	12 569	30 453	19 826	39 493	26 654	54 208	37 979
Comoros	2005	3 050	2 615	4 003	3 432	4 753	4 075	4 968	4 259
Côte d'Ivoire	2007	51 900	42 662	65 085	53 750	82 079	68 317	100 042	83 928
Eritrea	2006	7 711	6 918	12 072	10 811	19 398	17 348	25 616	22 901
Ethiopia	2006	200 885	185 275	267 890	243 202	347 112	310 060	470 853	415 474
Guinea-Bissau	2006	5 479	4 109	5 905	4 495	7 917	6 142	10 965	8 671
Madagascar	2006	76 831	57 024	83 817	63 307	86 175	66 556	94 420	74 607
Malawi	2007	42 330	40 612	46 025	43 235	47 998	43 977	73 176	66 213
Mali	2006	28 964	15 341	39 655	21 685	50 536	28 805	68 584	40 819
Mauritania	2006	11 252	9 738	12 025	10 299	14 010	11 855	16 752	14 021
Mozambique	2006	61 932	59 761	67 474	64 274	82 462	77 564	106 838	99 610
Niger	2006	28 163	27 059	47 072	45 093	71 350	68 097	94 992	90 324
Rwanda	2004	28 254	27 633	32 951	31 688	38 795	36 865	48 574	45 696
Senegal	2006	37 767	31 932	46 915	39 685	57 111	48 339	66 899	56 658
Sudan	2005	113 094	91 385	167 561	131 614	217 107	165 848	252 456	187 644
Uganda	2005	139 641	124 086	156 403	139 352	186 317	166 636	257 921	231 827
									·····>

Country	Year	Current value		2010		2015		2020	
		Overall	Public	Overall	Public	Overall	Public	Overall	Public
Benin	2006	31 103	25 099	38 227	31 245	50 292	41 778		
Cape Verde	2005	3 190	3 190	3 413	3 413	3 723	3 723		
Congo	2006	11 260	5 272	13 691	6 910	16 891	9 446		
Gambia, The	2004	4 956	4 668	7 633	7 082	9 332	8 551		
Ghana	2005	89 278	66 802	106 678	79 821	121 009	90 545		
Guinea	2006	28 296	20 485	35 846	26 487	48 808	37 023		
Lesotho	2006	10 513	10 457	10 264	10 187	10 132	10 029		
Morocco	2006	146 298	131 625	142 721	126 916	147 929	129 630		
Namibia	2006	13 059	12 815	12 479	12 231	12 199	11 937		
Nigeria	2004	579 802	NA	674 980	NA	783 853	NA		
Sao Tome and Principe	2006	1 009	1 009	963	963	965	965		
Swaziland	2005	6 741	6 741	6 489	6 489	6 649	6 649		
Togo	2006	28 003	14 001	33 543	17 035	37 766	19 565		
United Rep. of Tanzania	2007	156 664	153 286	181 038	174 216	244 693	230 991		
Zambia	2006	52 323	48 770	58 170	53 976	72 523	67 187		
Algeria	2005	171 471	171 471	159 832	159 832				
Botswana	2004	12 717	11 733	12 273	10 998				
Egypt	2007	368 785	335 779	377 220	341 308				
Kenya	2005	153 678	NA	199 647	NA				
Mauritius	2006	5 598	4 137	5 542	4 096				
Tunisia	2005	59 252	58 342	53 302	51 548				

Source: Authors' calculation based on UIS and national data

References

ActionAid International (2005). *Contradicting Commitments: How the Achievement of Education For All Is Being Undermined by the International Monetary Fund.*

ActionAid International (2007). *Confronting the Contradictions: The IMF, wage bill caps and the case for teachers.*

Akala, W.J. (2002). *World Bank/IMF Policies on Teacher Recruitment and Re-Sizing in Kenya: A Critique.*

Akyeampong, K., & Bennell, P. (2007). "Teacher Motivation in Sub-Saharan Africa and South Asia". *Researching the Issues, Educational Papers No. 71*. London: DFID. Online. <www.dfid.gov.uk/Pubs/files/teacher-motivation-africa-asia-71.pdf>.

Akyeampong, K., Djangmah, J., Oduro, A., Seidu, A., & Hunt, F. (2007). *Access to Basic Education in Ghana: The Evidence and the Issues.* Country Analytic Report. CREATE, Centre for International Education, University of Sussex.

Akyeampong, K., & Stephens, D. (2002). "Exploring the Backgrounds and Shaping of Beginning Student Teachers in Ghana: Toward Greater Contextualisation of Teacher Education". *International Journal of Educational Development,* Vol. 22, No. 3-4, pp. 262-274.

Améléwonou, K., Brossard, M., & Gacougnolle, L.C. (2004). *La question enseignante dans la perspective de la scolarisation primaire universelle en 2015 dans les pays CEDEAO, CEMAC et PALOP*. Dakar: Pôle de Dakar.

Archer, D. (2007). *Challenging the IMF on Education: Why caps on teachers need to be lifted.* ActionAid International.

Azam, J.P. (2001). "The Redistributive State and Conflicts in Africa". *Journal of Peace Research,* Vol. 38, No. 4, pp. 429-444.

Bernard, J.-M. (2007). "La fonction de production éducative revisitée dans le cadre de l'Education Pour Tous en Afrique subsaharienne : Des limites théoriques et méthodologiques aux apports à la politique éducative". PhD thesis, Dijon, Université de Bourgogne.

Bernard, J.-M, Tiyab, B.K., & Vianou, K. (2004). *Profils enseignants et qualité de l'éducation primaire en Afrique subsaharienne francophone : Bilan et perspectives de dix années de recherche du PASEC.* Mimeo. Dakar: PASEC/CONFEMEN.

Bianchini, P. (2004). *Ecole et politique en Afrique noire, sociologie des crises et des réformes du système d'enseignement au Sénégal et au Burkina Faso (1960-2000)*. Paris: Karthala.

Bonnet, G. (2007). *What do recent evaluations tell us about the state of teachers in sub-Saharan countries?* Background paper prepared for the *Education for All Global Monitoring Report 2008*. Paris: UNESCO.

Bonnet, G. (2008). *Do teachers' knowledge and behaviour reflect their qualifications and training? Evidence from PASEC and SACMEQ country studies.*

Bourdon, J. (2006). "Coût et financement de l'éducation primaire en Afrique subsaharienne". In Marc Pilon (ed.), *Défis du développement en Afrique subsaharienne : l'éducation en jeu*, Les Collections du CEPED, série "Rencontres". Paris: CEPED.

Bourdon, J., & Nkengne-Nkengne, A.P. (2007). "Les enseignants contractuels : avatars et fatalités de l'Education Pour Tous". In *La professionnalisation des enseignants de l'éducation de base : les recrutements sans formation initiale* (Sèvres, June 11-15, 2007).

Bourdon, J., Frölich, M., & Michaelowa, K. (2006). "Broadening Access to Primary Education: Contract Teacher Programs and Their Impact on Education Outcomes in Africa–An Econometric Evaluation for the Republic of Niger". In L. Menkhoff (ed.), *Pro-Poor Growth: Issues, Policies, and Evidence*, pp. 119-142. Berlin: Duncker & Humblot.

Bourdon, J., Frölich, M., & Michaelowa, K. (2007). *Teacher Shortages, Teacher Contracts and their Impact on Education in Africa.* IREDU, Université de Bourgogne.

Bressoux, P. (2000). "Modélisation et évaluation des environnements et des pratiques d'enseignement". Habilitation à diriger des recherches, Université Pierre Mendès, Grenoble.

Bressoux, P., Kramarz, F., & Prost, C. (2006). "Teachers' Training, Class Size and Students' Outcomes: Evidence from Third Grade Classes in France". In *Conference on Education, Training and the Evolving Workplace* (Vancouver, May 12-13, 2006). Team for Advanced Research on Globalization, Education, and Technology (TARGET) and the National Research Data Centre Program.

Bruns, B., Mingat, A., & Rakotomalala, M. (2003). *Achieving Universal Primary Education by 2015: A Chance for Every Child*. Washington, DC: World Bank.

Care International (2003). *Reaching Underserved Populations with Basic Education in Deprived Areas of Ghana: Emerging Good Practices.* Washington, DC: USAID.

Chaudhury, N., Hammer, J., Kremer, M., Muralidharan, K., & Rogers, F.H. (2006). "Missing in Action: Teacher and Health Worker Absence in Developing Countries". *Journal of Economic Perspectives*, Vol. 20, No. 1, pp. 91-116.

CIEP (2007). "Les enseignants recrutés sans formation initiale : Quels enjeux ? Quelles réponses ?", *Proceedings of the international seminar "La professionnalisation des enseignants de l'éducation de base : les recrutements sans formation initiale"* (*Sèvres, June 11-15, 2007*). Sèvres: CIEP.

Cissé, M., Diarra, A., Marchand, J., & Traoré, S. (2000). *Les écoles communautaires au Mali. Mécanismes et stratégies de financement de l'éducation.* Paris: IIPE.

Cogneau, D. (2003). "Colonisation, School and Development in Africa: An empirical analysis". *Dial Working Paper No. DT/2003/01*. DIAL. Online. <http://www.dial.prd.fr/dial_publications/PDF/Doc_travail/2003-01.pdf>.

Das, J., Dercon, S., Habyarimana, S.P., & Krishnan, J. (2005). "Teacher Shocks and Student Learning: Evidence from Zambia". *Policy Research Working Paper.* No. 3602. Washington, DC: World Bank.

References

Dembélé, M., & Mellouki, M. (2004). "Les enseignants du primaire au Burkina Faso, Mali, Niger et Sénégal : un corps professionnel en recomposition". In *Conférence sur les enseignants non fonctionnaires du primaire* (Bamako, November 21-23, 2004).

De Ravignan, A. (2007). "Droit à l'éducation au Sud, des classes pour tous". *Alternatives Internationales*, No. 34.

Diallo, T.I. (2007). "Les enseignants communautaires sans formation initiale en Guinée". In *La professionnalisation des enseignants de l'éducation de base : les recrutements sans formation initiale* (Sèvres, June 11-15, 2007).

Diarra, D., Fall, M., Gueye, P.M., Mara, M., & Marchand, J. (2000). *Les écoles communautaires de base au Sénégal. Mécanismes et stratégies de financement de l'éducation*. Paris: IIEP.

Duflo, E., & Hanna, R. (2005). "Monitoring Works: Getting Teachers to Come to Schools". *NBER Working Paper* No. 11 880.

Duthilleul, Y. (2005). *Lessons learnt in the use of "contract" teachers*. Paris: IIEP.

Education International (2007). Teacher Supply, Recruitment and Retention in Six Anglophone Sub-Saharan African Countries: A report on a survey conducted by Education International in the Gambia, Kenya, Lesotho, Tanzania, Uganda and Zambia.

ETUCE (2005). *Europe Needs Teachers: Hearing on Teacher Education*. Brussels: European Trade Union Committee for Education.

Global Campaign for Education (2004). *Undervaluing teachers: IMF policies squeeze Zambia's education system.*

Gottelmann-Duret, G., & Hogan, J. (1998a). *The utilization, deployment and management of teachers in Botswana, Malawi, South Africa and Uganda.* Paris: UNESCO.

Gottelmann-Duret, G. (1998b). *La gestion des enseignants de premier cycle au Bénin, Burkina Faso, Mali et Sénégal*. Working document. Paris: UNESCO, IIEP.

Gottelmann-Duret, G. (2007). "Le recrutement des enseignants sans formation initiale : Quelles alternatives ? Quels risques ? Quelles stratégies de formation ?". In *La professionnalisation des enseignants de l'éducation de base : les recrutements sans formation initiale* (Sèvres, June 11-15, 2007).

Habyarimana, J. (2006). *Characterizing Teacher Absence in Uganda: Evidence from 2006 Unit Cost Study.*

Hallak, J., & Poisson, M. (2005). "Ethics and Corruption in Education—an Overview". *Journal of Education for International Development.*

Hanushek, E., Kain, J-F., & Rivkin S.G. (2003). "Why Public Schools Lose Teachers?". *Journal of Human Resources*, Vol. 39, No. 2, pp. 326-354.

Hedges, J. (2000). "The Importance of Posting in Becoming a Teacher in Ghana". *MUSTER Discussion Paper No. 13.* Centre for International Education, University of Sussex.

Henaff, N. (2003). "Quel financement pour l'Ecole en Afrique ?". *Cahiers d'études africaines*, Vol. 43, No. 169-170, pp. 167-188.

Houngbedji, K. (2007). "La politique de contractualisation des enseignants en Guinée : expérience du programme de formation initiale des maîtres en Guinée". In *La professionnalisation des enseignants de l'éducation de base : les recrutements sans formation initiale* (Sèvres, June 11-15, 2004).

Independant Evaluation Office of the IMF. (2007). Le FMI et l'aide à l'Afrique subsaharienne. Evaluation report.

Jacob, B.A., & Lefgren, L. (2004). "The Impact of Teacher Training on Student Achievement: Quasi-Experimental Evidence from School Reform Efforts in Chicago". *Journal of Human Resources*, Vol. 39, No. 1, pp. 50-79.

Jarousse, J.P., & Suchaut, B (2002). *Les absences des enseignants dans le premier cycle de l'enseignement fondamental en Mauritanie : importance, déterminants et conséquences sur les apprentissages des élèves*. Mimeo. IREDU, Université de Bourgogne.

Keita, I.M. (2007). "Niger : Le recrutement des enseignants sans formation initiale". In *La professionnalisation des enseignants de l'éducation de base : les recrutements sans formation initiale* (Sèvres, June 11-15, 2007).

Kirk, J., & Dembélé, M. (2007). "More and better teachers needed: Achieving quality education for all". *id21 insights education*, No. 6. Online. <http://www.id21.org/insights/insights-ed06/index.html>.

Krueger, A.B. (1999). "Experimental Estimates of Education Production Functions". *The Quarterly Journal of Economics*, Vol. 114, No. 2, pp. 497-532.

Lewin, K. (2004). *The Pre-Service Training of Teachers—Is It Fit for Purpose and How Can It Be Improved?* Policy paper, EFA Global Monitoring Report.

Lewin, K., & Stuart, J.S. (2003). Researching Teacher Education: New Perspectives on Practice, Performance and Policy Multi-Site Teacher Education Research Project (MUSTER). Synthesis report.

McCaffrey, D.F., Lockwood, J.R., Koretz, D.M., & Hamilton, L.S. (2003). *Evaluating Value-Added Models for Teacher Accountability.* Santa Monica: Rand Corporation.

Mapto Kengne, V., & Mingat, A. (2002). "Analyse comparative internationale de la féminisation du corps enseignant et de l'impact du sexe de l'enseignant sur la performance des systèmes éducatifs primaires en Afrique". In *Colloque international de l'AFEC* (Caen, May 23-25, 2002).

Marchand, J. (2000). *Les écoles communautaires—Mali, Sénégal, Togo. Mécanismes et stratégies de financement de l'éducation.* Paris: IIEP.

Martin, J.-Y. (2003). "Les écoles spontanées en Afrique subsaharienne : Champ éducatif et contre-champ scolaire". *Cahiers d'études africaines*, No. 169-170, pp. 19-40.

McMeekin, R.W. (2003). *Incentives to Improve Education. A New Perspective.* Cheltenham: Edward Elgar Publishing.

References

Michaelowa, K. (2002). "Teacher Job Satisfaction, Student Achievement, and the Cost of Primary Education in Francophone Sub-Saharan Africa". *Discussion Paper No. 188*, Hamburg: Hamburg Institute of International Economics.

Michaelowa, K., & Wechtler, A. (2006). *The cost-effectiveness of inputs in primary education: Insights from the literature and recent student surveys for sub-Saharan Africa*. Working document. Paris: ADEA.

Mingat, A., & Suchaut, B. (2000). *Les systèmes éducatifs africains : une analyse économique comparative*. Bruxelles: De Boeck Université.

Mingat, A. (2004). *La rémunération/le statut des enseignants dans la perspective de l'atteinte des objectifs du millénaire dans les pays d'Afrique subsaharienne francophone en 2015*. Washington, DC: World Bank.

Mingat, A. (2006a). *Education and Labor Markets: A Match Difficult to Achieve in Sub-Saharan African Countries*. CNRS and Université de Bourgogne.

Mingat, A. (2006b). *Disparités sociales en éducation en Afrique subsaharienne : Genre, localisation géographique et revenu du ménage*. IREDU and CNRS.

Mingat, A., Ledoux, B., & Rakotomalala, R. (To be published). *Développer l'éducation post-primaire en Afrique subsaharienne : La soutenabilité financière comme référence pour évaluer les options*.

Mingat, A., & Ndem, F. (To be published). *La dimension rurale des scolarisations dans les pays d'Afrique au sud du Sahara : situation actuelle et défis pour le développement de la couverture scolaire au niveau du premier cycle secondaire*.

Ministère de l'Education, Sénégal & ADEA (2001). *Etude de cas sur les volontaires de l'Education au Sénégal*.

Ministère de l'Education, Sénégal. (2003). *Guide pratique sur la carrière de l'enseignant*.

Ministère de l'Education de Base, Cameroun & Coopération française (2007). "Cameroun : Evolution du recrutement et de la formation des enseignants depuis 1960". In *La professionnalisation des enseignants de l'éducation de base : les recrutements sans formation initiale* (Sèvres, June 11-15, 2007).

Ministère de l'Education Nationale et de la Recherche Scientifique, Madagascar (2007). *Plan Education Pour Tous*.

Mobile Task Team on the Impact of HIV/AIDS on Education (2005). *Educator Attrition and Mortality in South Africa*. Education Labour Relations Council (ELRC).

Mulkeen, A. (2006). *Teachers for Rural Schools: A Challenge for Africa*. Working paper. Biennale on Education in Africa (Libreville, March 27-31, 2006). Association for the Development of Education in Africa.

Mulkeen, A. (2008). *Teacher issues in Liberia*. Africa Region Human Development working paper. Washington, DC: World Bank.

Mulkeen, A., & Chen, D. (2008). *Teachers for Rural Schools: Experiences in Lesotho, Malawi, Mozambique, Tanzania, and Uganda*. Washington, DC: World Bank.

Murnane, R. (1975). *The Impact of School Resources on the Learning of Inner City Children*. Cambridge: Ballinger.

Mutume, G. (2008). "Plus de liberté d'action ou plus de restrictions ? Un nouveau programme du FMI pour les "lauréats" des plans d'austérité". *Afrique Renouveau*, Vol. 22, No. 1, p. 20.

Ndoye, M. (2007). "Education pour tous : relever le défi du recrutement accéléré d'enseignants". In *La professionnalisation des enseignants de l'éducation de base : les recrutements sans formation initiale* (Sèvres, June 11-15, 2007).

Nkengne-Nkengne, A.P. (2007). "Understanding recent trends in education policy making in sub-Saharan Africa: The case of the contract teacher policy". PhD research design, Institute of political science, University of Zurich.

OECD (2005). *Teacher Matters: Attracting, Developing and Retaining Effective Teachers*. Education and Training Policy. Paris: OECD.

Oxfam International. (2007). "Du personnel et des salaires : Le financement des travailleurs qualifiés nécessaire pour fournir des services éducatifs et de santé pour tous". *Payer pour les personnes, Oxfam information document.*

Patrinos, H. A., & Kagia, R. (2007). "Maximizing the Performance of Education Systems: The Case of Teacher Absenteeism". In Campos, J. E., & Pradham, S. (eds.), *The Many Faces of Corruption: Tracking Vulnerabilities at the Sector Level*. Washington, DC: World Bank.

PASEC (2004a). *Les enseignants contractuels et la qualité de l'école fondamentale publique au Mali : quels enseignements ?* Dakar: CONFEMEN.

PASEC (2004b). *Les enseignants contractuels et la qualité de l'enseignement de base au Niger : quel bilan ?* Dakar: CONFEMEN.

PASEC (2006a). *La qualité de l'éducation en Mauritanie. Quelles ressources pour quels résultats ?* Dakar: CONFEMEN.

PASEC (2006b). *La formation des enseignants contractuels.* Etude thématique, Guinée. Dakar: CONFEMEN.

PASEC (2007). *Diagnostic de la qualité de l'enseignement primaire au Bénin.*

Rapport d'Etat d'un Système Educatif National (RESEN)/Country Status Report (CSR). (2002a). Le système éducatif ivoirien : éléments d'analyse pour instruire une politique éducative nouvelle dans le contexte de l'EPT et du PRSP.

Rapport d'Etat d'un Système Educatif National (RESEN)/Country Status Report (CSR). (2002b). Le système éducatif béninois : Performances et espaces d'amélioration pour la politique éducative.

References

Rapport d'Etat d'un Système Educatif National (RESEN)/Country Status Report (CSR). (2003). Cameroun. Eléments de diagnostic pour la politique éducative dans le contexte de l'EPT et du DSRP.

Rapport d'Etat d'un Système Educatif National (RESEN)/Country Status Report (CSR). (2005a). Le système éducatif de la République démocratique du Congo : Priorités et alternatives.

Rapport d'Etat d'un Système Educatif National (RESEN)/Country Status Report (CSR). (2005b). Eléments de diagnostic du système éducatif tchadien. Pour une Politique Educative Nouvelle.

Rapport d'Etat d'un Système Educatif National (RESEN)/Country Status Report (CSR). (2005c). Eléments de diagnostic du système éducatif malien : le besoin d'une politique éducative nouvelle pour l'atteinte des objectifs du millénaire et la réduction de la pauvreté.

Rapport d'Etat d'un Système Educatif National (RESEN)/Country Status Report (CSR). (2006). Le système éducatif congolais : diagnostic pour une revitalisation dans un contexte macroéconomique plus favorable.

Rapport d'Etat d'un Système Educatif National (RESEN)/Country Status Report (CSR). (2007a). Le système éducatif centrafricain : contraintes et marges de manœuvre pour la reconstruction du système éducatif dans la perspective de la réduction de la pauvreté.

Rapport d'Etat d'un Système Educatif National (RESEN)/Country Status Report (CSR). (2007b). Eléments de diagnostic du système éducatif mauritanien.

Rapport d'Etat d'un Système Educatif National (RESEN)/Country Status Report (CSR). (2008). Le système éducatif béninois: diagnostic pour une politique sectorielle mieux équilibrée et plus efficace, élaboré conjointement par le gouvernement béninois.

Rapport d'Etat d'un Système Educatif National (RESEN)/Country Status Report (CSR). (To be published). Le système éducatif bissau-guinéen : éléments de diagnostic.

Rapport d'Etat d'un Système Educatif National (RESEN)/Country Status Report (CRS). (To be published). Le système éducatif au Burkina Faso : éléments de diagnostic.

Republic of Malawi (2004). Education Country Status Report.

Rivkin, S.G., Hanushek, E.A., & Kain, J.F. (2005). "Teacher, Schools and Academic Achievement". *Econometrica*, Vol. 73, No. 2, pp. 417-445.

Seid, N. (2007). "Tchad. L'expérience du Tchad en matière de recrutement d'enseignants du primaire sans formation initiale". In *La professionnalisation des enseignants de l'éducation de base : les recrutements sans formation initiale* (Sèvres, June 11-15, 2007).

Tamukong, J. (2004). *The impact of HIV/AIDS on teachers and other education personnel in West and Central Africa: A synthesis of the literature from 2000 to 2004*. Educational Research Network for West and Central Africa.

The New York Times (2005). "Editorial: Africa at the Summit". *The New York Times* (New York), July 3, 2005.

UNESCO (2000). "L'imagination africaine face à la crise : Des volontaires qui… font carrière". *Forum Education, Le quotidien du Forum Mondial sur l'Education pour tous à Dakar*, 26-28 avril 2000.

UNESCO (2005). *Education for All Global Monitoring Report. The Quality Imperative*. Paris: UNESCO.

UNESCO (2006). *Booklet 1: Overview. Good Policy and Practice in HIV & AIDS and Education (booklet series)*. Paris: UNESCO.

UNESCO-BREDA (2007). *Dakar+7 Report. EFA: Top priority for integrated sector-wide policies.* Dakar: UNESCO-BREDA.

UNESCO-UIS (2006). *Teachers and the quality of education: Monitoring global needs for 2015.* Montréal: UIS.

UNICEF (To be published). *Situation de la femme et des enfants à Madagascar*.

Villegas-Reimers, E. (2003). *Teacher Professional Development: An International Review of the Literature.* Paris: IIEP-UNESCO.

VSO (2002). What makes teachers tick: A policy research report on teachers' motivation in developing countries. London: VSO.

World Bank (2007a). *The Challenges of Ensuring Quality Teaching in Every Classroom in Africa—Teacher Issues in Eritrea*. Workshop Background Paper. Regional Workshop on Teacher Matters (Nairobi, September 24-28, 2007).

World Bank (2007b). *The Challenges of Ensuring Quality Teaching in Every Classroom in Africa—Teacher Issues in The Gambia*. Workshop Background Paper. Regional Workshop on Teacher Matters (Nairobi, September 24-28, 2007).

World Bank (2007c). *The Challenges of Ensuring Quality Teaching in Every Classroom in Africa—Teacher Issues in Lesotho*. Workshop Background Paper. Regional Workshop on Teacher Matters (Nairobi, September 24-28, 2007).

World Bank (2007d). *The Challenges of Ensuring Quality Teaching in Every Classroom in Africa—Teacher Issues in Malawi.* Workshop Background Paper. Regional Workshop on Teacher Matters (Nairobi, September 24-28, 2007).

World Bank (2007e). *The Challenges of Ensuring Quality Teaching in Every Classroom in Africa—Teacher Issues in Uganda.* Workshop Background Paper. Regional Workshop on Teacher Matters (Nairobi, September 24-28, 2007).

World Bank (2007f). *The Challenges of Ensuring Quality Teaching in Every Classroom in Africa—Teacher Issues in Zambia*. Workshop Background Paper. Regional Workshop on Teacher Matters (Nairobi, September 24-28, 2007).

World Bank (2007g). *The Challenges of Ensuring Quality Teaching in Every Classroom in Africa—Teacher Issues in Zanzibar*. Workshop Background Paper. Regional Workshop on Teacher Matters (Nairobi, September 24-28, 2007).

World Bank (2008). Madagascar PETS.

Summary

The spectacular progress in enrolments in Africa since the early 2000's was made possible by an unprecedented growth in teacher numbers. The massive recruitment of teachers resulted from the higher priority granted to education, and more particularly to basic education, both at national and international levels, but also from the implementation of aggressive national policies, focused on controlling salary costs. These policies, often introduced as a matter of urgency to face up to the challenges of Education For All, are now frequently questioned.

This publication, while recognising that controlling salary costs is inevitable, strives to demonstrate that other aspects, such as training, management or the professional development of teachers must also obligatorily be taken into account in developing new teacher policies that will enable the countries successfully achieve the EFA goals.

UNESCO
BREDA

Pôle de Dakar
EDUCATION SECTOR ANALYSIS