Joint ILO–UNESCO Committee of Experts on the Application of the Recommendations concerning Teaching Personnel (CEART)

Terms and conditions of employment of teachers in relation to teacher shortages and Education for All
by Laura Figazzolo

Background paper for discussion at the 11th Session of the CEART (Geneva, 8–12 October 2012)

Geneva, 2012
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This paper served as a background study for the 11th session of the Joint ILO/UNESCO Committee of Experts on the Application of the Recommendations concerning Teaching Personnel (CEART), held in Geneva, 8-12 October 2012.
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This paper serves as a background document for the 11th Session of the Joint ILO–UNESCO Committee of Experts on the Application of the Recommendations concerning Teaching Personnel (CEART), agenda item 4(c) on terms and conditions of employment of teachers in relation to teacher shortages and Education for All (EFA).

**Scale and nature of teacher shortages**

Recent data estimate that 10.3 million additional teachers will have to be recruited worldwide if universal primary education (UPE) is to be achieved by 2015 (EFA GMR, 2011).

The expansion of primary education has meant a growing demand for teachers in least developed countries (LDCs), where primary school enrolment rates increased by 40 per cent between 1999 and 2009. The teacher gap is particularly acute for sub-Saharan Africa, the Arab States and South Asia, where, quantitatively, the recruitment of teachers in recent years has lagged behind the growth in pupil numbers (UIS, 2011). In total, expanding countries will need 1.9 million new teachers to fill the gap (UNESCO, 2011a; UIS, 2011). Many of them, however, have made substantial progress in the last decade in terms of coverage of the new enrolled population. Six LDCs have achieved or almost achieved universal primary education: Burundi, Madagascar, Rwanda, Samoa, Sao Tome and Principe, and United Republic of Tanzania all report an adjusted net enrolment rate (adjusted net enrolment rate, measuring the coverage of primary school-aged children) bigger than 95 per cent (UNESCO, 2011a). Remarkable progress was also made in Benin, Bhutan, Burkina Faso, Ethiopia, Mali, Mozambique and Niger, where the adjusted net enrolment rate increased by more than 25 per cent between 1999 and 2008. The abolition of school fees has been an important catalyst of this rapid progress (UNESCO, 2011a).

In spite of these success cases, though, the majority of LDCs are not on track with the achievement of UPE by 2015. This concerns both the number of primary-aged children who remain out of school – 26 million in 2008, of which 54 per cent are girls – and the need for additional teachers. Twenty LDCs will need to expand the number of teachers in classrooms at a pace of 3 to 9 per cent (or even more) per year (excluding the regular recruitment to compensate for attrition); while another ten will have to increase annual recruitment by 0.5 to 3 per cent (UNESCO, 2011a).

Developing countries face the biggest challenge in calibrating the high demand for teachers with a very limited teacher supply, in both quantitative and qualitative terms. Twenty-seven countries in sub-Saharan Africa face a teacher gap of 1.2 million (UNESCO, 2011a; EFA GMR, 2011) – equivalent to 76 per cent of the current teaching force in the region (UIS, 2011). In six countries, the required annual growth of additional teaching stocks exceeds 10 per cent: Burkina Faso (13.9 per cent), the Central African Republic (20.9 per cent), Chad (13.8 per cent), Djibouti (12 per cent), Eritrea (18.4 per cent) and Niger (13.6 per cent) (UIS, 2011).

For every school year starting between 2009 and 2015, an average of 350,000 teachers should be hired in sub-Saharan Africa to fill additional posts and compensate for teachers leaving the primary teaching workforce (UIS, 2011). The target seems particularly hard to achieve if the current recruitment rate in the region continues, which produced an overall increase in the last decade (2000–08) of about 800,000 primary teachers and

1 Including compensation for 5 per cent attrition.
500,000 secondary teachers (Pôle of Dakar, 2011), i.e. 162,500 teachers annually on average.

Recruitment of qualified teachers represents a particularly major challenge, especially in LDCs, and remarkably if taken in relation to – and in contrast with – the increasing use of contract teachers for enrolling hard-to-reach children (UNESCO, 2011a). In sub-Saharan Africa, recruitment needs exceed the population of potential upper secondary graduates. For instance, the annual recruitment need in Mozambique is equivalent to 17.8 per cent of 20-year-olds, while the gross enrolment ratio (GER) in upper secondary education in 2009 was just 9.5 per cent (UIS, 2011). The situation is similar in Burkina Faso, Central African Republic, Chad, Niger, Uganda and United Republic of Tanzania.

Some developed countries, too, face an issue of qualified teachers’ recruitment, particularly in relation to specific subjects (Eurydice, 2012). Around 15 per cent of all 15-year-old students among PISA 2009 participating European countries were taught in schools where the school head reported a shortage of qualified teachers in mathematics and science, and 7.7 per cent of students in schools experiencing a shortage of teachers in languages (OECD, 2010). In some countries (Germany, Netherlands, Turkey), there is a general teacher shortage in all subjects. In several others, (Belgium, Ireland, Slovakia), the shortage is less acute in core subjects than in others (OECD, 2010).

Deployment is a problem as well, notably for developing countries. First, trained teachers are more likely to choose to work in urban areas. Whereas 60 per cent of teachers in the Ugandan capital, Kampala, are trained, the figure falls to 11 per cent in the rural district of Yumbe (Mulkeen, 2009). Similar situations are to be found in Lesotho (Mulkeen, 2009) and Indonesia (Indonesia Ministry of National Education, 2007). Second, there are difficulties to recruit women teachers to some remote and disadvantaged areas.

The poor level of teacher morale and insufficient training influence teacher availability to enter and retain the profession (EFA GMR, 2010). Filling the teacher gap is a challenge that greatly depends on countries’ capability to address qualitative factors notably related to teacher terms and conditions of employment, which in turn affect the availability of a qualified and motivated teaching force, and, therefore, have deep repercussions on the real chances to fulfil teacher recruitment needs. These policies will be even more difficult to achieve in a framework of economic recession and reduced development assistance. UNESCO (2011a) estimates that, in African LDCs, national budgets for teacher salaries will have to grow by 50 per cent in order to recruit the needed number of teachers, while capacity for teacher training will have to be made available.
A. Teacher pay and working conditions

A.1. Salaries

In chapter X, the 1966 ILO–UNESCO Recommendation concerning the Status of Teachers argues that particular importance should be attached to salary and that teacher salaries should reflect the importance to society of teachers, comparing favourably with salaries paid in other occupations requiring similar or equivalent qualifications (also taking into account that certain posts require higher qualifications and experience and carry greater responsibilities), and providing teachers with the means to ensure a reasonable standard of living for themselves and their families as well as to invest in enhancing their professional qualification.

However, a long-term declining trend in teacher salaries during the past ten years has been identified by the Tenth Session of CEART (2009) as a widespread phenomenon, with the exception of a quite small number of rich countries. Yet differences among various societies and levels of education exist. In some high- and middle-income countries, primary teacher salaries have risen in real terms over the career, while at the secondary level the decline occurs in most countries with comparable data. Extremely low salary levels are reported in Africa and South Asia, often coupled with irregular payments.

A.1.1. Latest trends

Between 2000 and 2009, teacher salaries augmented in real terms in most high- and upper-middle income countries that the OECD reviews, with the largest increases – of well over 50 per cent – in the Czech Republic, Estonia and Turkey. The only exceptions were Australia, France, Japan and Switzerland (OECD, 2011).

Across Europe, the recent economic crisis (2010–11) has had an important impact on public finances, especially after January 2010, when many countries have been obliged to apply salary cuts for public employees (Eurydice, 2012). In Spain, the initially planned salary increase of 0.3 per cent with respect to 2009, approved and in force until May 2010, was overturned by a general reduction of around 5 per cent. Ireland, Greece and Romania also reduced the absolute levels of teachers’ salaries. In a large group of countries, though, a considerable effort was made to keep teacher salaries at their 2009 level. The United Kingdom continued to implement a 2.3 per cent rise in 2009–10 and 2010–11 in spite of pay freezes on other public sector workers. The reforms introduced by the Netherlands and Poland in 2009 continued to be implemented in 2010, resulting in a pay rise for teachers. In the Czech Republic, although the public resources for the salaries of public employees have been cut by 10 per cent in 2011, funds for teachers’ statutory salaries have been increased. Bulgaria introduced an increase of between 7 per cent and 13 per cent for the statutory salaries. Iceland also applied a scheduled increase for those upper secondary teachers with the lowest salaries (Eurydice, 2012).

A more accurate indication of the value countries place on education is given by the comparison of statutory salaries to gross domestic product (GDP) per capita, which indicates the amount countries invest in teachers relative to their available resources. Most

2 Paras 114 to 124.

3 See also CEART background paper “Impact of the continued economic downturn on education and teachers: Employment, salaries and conditions of teaching and learning”.
countries saw a fall in teacher salaries relative to GDP per capita during the 2000–09 period. This decline is sometimes very slight, but is most noticeable in Australia, France, Japan, Korea and Switzerland, between 10–15 per cent for primary and secondary teachers during the decade. Although significant improvements in teacher salary levels have been registered in some countries – Czech Republic, Poland, Turkey – overall in the OECD and partner countries reviewed, teacher salaries declined by 2.5–4 per cent since 2000 (figures 1, 2 and 3). This indicates a considerable weakening of teachers’ status compared to national income in the 35 countries studied (OECD, 2011; Eurydice, 2012).

Figure 1. Trends in the ratio of salaries after 15 years of experience/minimum training to GDP per capita (2000, 2009) – primary education – OECD countries

Figure 2. Trends in the ratio of salaries after 15 years of experience/minimum training to GDP per capita (2000, 2009) – lower secondary education – OECD countries
Figure 3. Trends in the ratio of salaries after 15 years of experience/minimum training to GDP per capita (2000, 2009) – upper secondary education – OECD countries

In developing countries, during the recent crisis, nominal salaries for teachers have generally remained stable or slightly increased. However, high local food inflation from 2007–08 has continued in 2009 in many countries (Chai, 2009), and increases in nominal salaries have not kept pace with the large cumulative rises in prices. The salary levels of primary school teachers, and their purchasing power, has eroded considerably in real terms over the period 2007–09 in ten out of 15 countries for which data are available (UNICEF, 2010). In the Democratic Republic of the Congo (DRC) and Myanmar, school teachers’ real pay has decreased by about 40 per cent between 2008 and 2010, and by 20 to 30 per cent in Madagascar, Sudan and Yemen.  

Over the past 30 years, the average teacher salary as a ratio of GDP per capita has considerably declined in 39 African countries (including North Africa) (Pôle de Dakar, 2011). The average salary of a primary school teacher dropped from 8.4 times GDP per capita in 1975 to 4 times GDP per capita during the period 2003–09 (table 1). Much of the decline is due to the policy of massively recruiting contractual teachers, paid on average from one half to one quarter that of a regular teacher, as previously reported to the CEART (Fyfe, 2007; Bennell, 2009).

Table 1. Trends in average teacher salaries as a ratio of GDP per capita in public primary schools in Africa, 1975–2009 (or most recent year)

<table>
<thead>
<tr>
<th></th>
<th>1975</th>
<th>2009 or most recent year</th>
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<tbody>
<tr>
<td>Africa (including North Africa)</td>
<td>8.4</td>
<td>4.0</td>
</tr>
<tr>
<td>Francophone Africa</td>
<td>11.5</td>
<td>4.2</td>
</tr>
<tr>
<td>Anglphone Africa</td>
<td>5.4</td>
<td>4.5</td>
</tr>
<tr>
<td>Both anglophone and francophone Africa</td>
<td>8.6</td>
<td>4.3</td>
</tr>
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Sources: Mingat and Suchaut (2000) for 1975 to 1993; Pôle de Dakar for 2003 to 2009 or most recent year. All quoted in Pôle de Dakar, 2011.

4 See also CEART background paper “Impact of the continued economic downturn on education and teachers: Employment, salaries and conditions of teaching and learning”.

1.00 = parity between teachers salary and GDP. Source: OECD, 2011.
Despite the long-term trends, the Global Partnership for Education benchmark for primary school teacher pay sets a target of a maximum salary for teachers in developing countries at 3.5 times GDP per capita for 2015, whereas teacher salaries are 5.4 times GDP per capita in many countries (Bennell, 2009). The benchmark does not necessarily correspond to the reality of attracting and retaining teachers, particularly in rural and disadvantaged areas, but has been used as a guide to increasing the proportion of lower-cost contract and community or “parent” teachers as a short-term policy response. In most francophone countries, these teachers account for all or almost all the current or projected growth in teaching positions up to 2015, a trend that ignores previous CEART recommendations (ILO–UNESCO, 2007 and 2010).

If we look at sub-Saharan Africa, countries that have experienced the most dramatic drops in teacher salaries are also the ones denouncing the most severe teacher shortage together with the highest (and growing) share of contract teachers. In francophone Africa, where the average teacher salaries has decreased from 11.5 per cent to 4.2 per cent of GDP per capita in the last 30 to 35 years (table 1), lie the countries with the greatest teacher needs: Burkina Faso, Central African Republic, Chad, Niger (all with 10 per cent or more of required increase in teacher numbers), and also Congo, Côte d’Ivoire, Guinea, Senegal (all with 3 to 6 per cent required increase). In these countries, the share of contract teachers within the overall teaching force is quite remarkable, and it is expected to grow in the next years – in Guinea, Benin, Central African Republic, Cameroon, Togo, Senegal, Niger (Fyfe, 2007; Bennell, 2009).

A.1.2. Salaries between education levels

Teacher shortages at primary level may be due to the relatively lower salaries paid to primary as compared to secondary teachers, usually justified on the grounds of lower qualifications of the former.

In most high-income countries, teacher salaries are comparable to GDP per capita, and salary differences between primary and secondary school teachers are negligible (figures 1, 2 and 3). In North America and Europe, salaries for all education levels tend to be in the average GDP per capita range (UIS GED, 2011). However, some countries pay their secondary teachers more than their primary-level counterparts. In Luxembourg, lower and upper secondary teachers earn 50 per cent more relative to the GDP per capita, and, in Germany, Netherlands and Spain, there also are (smaller) differences in teacher remuneration between primary and secondary education.

Among 11 middle-income countries, the differences in salaries for primary and secondary school teachers are less pronounced (UIS GED, 2011). In Argentina, Chile, Egypt, Jordan, Peru, Philippines and Sri Lanka, these differences are minor. On the other hand, secondary school teachers in Tunisia and Paraguay earn approximately twice the GDP per capita, while teachers at the primary level earn around 1.7 and 1.6 times the GDP per capita, respectively. Relative to GDP, teacher salaries (for all levels) are highest in Cape Verde and lowest in Indonesia.

In several low-income countries in sub-Saharan Africa, secondary school teachers are compensated at a much higher rate than their primary-level counterparts, with potential consequences on the different morale of the two groups, recruitment and retention. Lower and upper secondary teachers in Rwanda earn six and seven times the GDP per capita, respectively, whereas primary teachers earn 2.6 times the GDP per capita. Secondary school teachers in Burkina Faso, Burundi, Central African Republic, Madagascar, Malawi and Togo also earn substantially higher salaries than primary school teachers.
A.1.3. Incentive payments to motivate teachers

Among the latest efforts to recruit teachers, school systems often use schemes offering, on top of basic pay scales, additional payments or other rewards for teachers to enhance their motivation. These incentives may include family allowances and bonuses for working in certain locations with disadvantaged conditions, and higher initial salaries for higher-than-minimum teaching qualifications early in a career. Later on, incentives may take the form of reduction of teaching hours. A few OECD countries also award additional payments based on teachers’ demographic characteristics (family status, age), as annual payments (OECD, 2011). As Iliukhina and Ratteree (2009) have pointed out, additional payments, usually on an annual basis, are often offered, among OECD countries, also to teachers who teach in certain fields experiencing shortages (mathematics, science, information and communication technologies, languages).

Moreover, performance incentive payments are provided in some systems to reward teaching, either as incidental payments or as annual additions to teacher salaries. International institutions and policy-makers in some developing countries are looking at pay-for-performance programmes. Some evidence, for example from the World Bank Human Development Network’s (WB HDN) (2010) study on government-run primary schools in the state of Andhra Pradesh in India, claims that even modest bonus payments to teachers can impact education outcomes, motivating, in turn, more qualified teachers to enter the profession (WB HDN, 2010). In sub-Saharan Africa, too, there have been some attempts to retain teachers by offering rewards for excellence in teaching, with mixed results (ITFT, 2010). A scheme in Kenya offered incentive prizes ranging from 21 per cent to 43 per cent of monthly salary for teachers whose students achieved high performance in examinations. However, this scheme provided an incentive for teachers to ask for transfers to higher performing schools, without impacting on the levels of teacher absenteeism.

As highlighted by Iliukhina and Ratteree (2009), in 2006 the CEART noted recent research among primary and secondary teachers in the high-income countries of the OECD indicating that merit pay at an individual level was not justified in terms of attracting and retaining teachers (ILO–UNESCO, 2007). Furthermore, previous studies have shown that, in addition to the difficulties of objectively measuring the relationship between teacher performance and learning outcomes, the use of assessment tests to measure outcomes can have perverse effects on teaching and learning achievements and, as such, might not have a positive impact on teacher satisfaction.

A.2. Teacher career structure

The Tenth Session of CEART in 2009 recognized that teaching career structures in some countries are evolving to encourage teachers to remain in teaching, but that much more still needs to be done to link teacher training and professional development, evaluation and career progression. Evidence from high- and low-income countries shows a general lack of professional development support adapted to the needs of teachers. Forward-looking employment policies to ensure balanced age and gender profiles of teaching forces are urgently required in many countries, especially for rural and disadvantaged areas.

A.2.1. Changes in career structures

The CEART’s Tenth Session report observed that gender balance in recruitment and retention, including opportunities for career development, is an important component of policies to address teacher shortages, requiring adequate financing and special programmes.
While the evidence from many sources clearly shows the positive association between presence of female teachers and girls’ enrolment and learning achievements (EFA GMR, 2011), female teachers continue to be a minority within the teaching force as we move up education levels. In early childhood education (ECE), staff remain overwhelmingly female in virtually every region and country. Except for sub-Saharan Africa, women comprise between 90–100 per cent of pre-primary teachers in the world, and trends point to an increasing feminization and virtually no targeted policies to meet this gap (ILO, 2012b). In primary schools, recent data concerning selected developing countries point to a widespread feminization of the teaching force, which slows down considerably at secondary and tertiary level (Commonwealth Secretariat and UNESCO, 2011). Data from 2001 to 2009 drawn from the UIS echoes findings from Iliukhina and Ratteree (2009). The percentage of female teachers has remained quite stable or has slightly increased over the period. As far as primary school is concerned, sub-Saharan Africa has the lowest proportion of female teachers, and saw a very marginal change (UIS, 2011). In secondary school, the situation is more dramatic: for the countries for which data are available, female teachers hardly reach 20 per cent of the teaching force. The picture is much worse if we look at female trained teachers, as their already low primary share declines even more sharply in secondary school (in Kenya, Niger, Burkina Faso).

Moreover, women continue to experience difficulties in obtaining promotions to higher levels. In OECD countries, male teachers move up the career ladder far more easily to become school principals (OECD, 2009). The TALIS report refers to a “glass ceiling” in most countries surveyed, and particularly in Austria, Belgium (Fl.), Ireland, Italy, Republic of Korea, Lithuania, Portugal and Turkey, where the percentage of female school principals is over 30 per cent below the percentage of female teachers (OECD, 2009).

Recent research conducted among selected developing countries by the Commonwealth Secretariat and UNESCO (2011) documents a high women’s presence in leadership positions in primary school, even if this is lower than their overall prevalence in the teaching force for that level of education. Male teachers tend to occupy a higher proportion of managerial positions at higher levels of the education ladder. In anglophone Africa, three types of opportunities for promotion exist: discretionary merit-based promotions to senior posts, movement to different salary scales on the basis of academic qualifications, and promotion to non-teaching positions (school management or inspection) (Mulkeen, 2010). Data available do not provide a gender-specific picture of the reality in surveyed countries. If we consider, though, that hardship of posting and qualifications are among the most common criteria for promotion to leadership positions (Mulkeen, 2010), we may assume that women are disadvantaged, as they tend to prefer deployment in urban settings and are more often unqualified, especially in secondary schools (section B.2), but there is no available evidence to support this assumption.

Available data on technical and vocational education and training (TVET) in low- and middle-income countries reports efforts to break down employment and career barriers that negatively impact women’s employment in the sector (ILO, 2010). A new skills development strategy in Bangladesh, foreseeing more training places on a gendered priority basis and recruitment of female instructors and trainers as part of the strategy to meet severe staff shortages, represents a forward-looking approach (Government of the People’s Republic of Bangladesh, 2011).

To reduce career frustration that could impact on recruitment, retention and motivation, targeting recruitment strategies by means of bursaries, material incentives and

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5 Dominica, India, Lesotho, Samoa, Sri Lanka.

fast-track career schemes to focus on women in under-represented areas is fundamental, together with introducing affirmative action in selection decisions. Specific policy measures include joint (male and female) promotion panels, setting up training programmes for developing leadership capacities in women teachers and establishing awareness and training programmes to help propel more women teachers into positions of responsibility in teachers’ organizations and professional bodies (ILO, 2011; ILO, 2012a).

A.2.2. Opportunities for continuing professional development (CPD)

Previous CEART reports and background papers (Iliukhina and Ratteree, 2009), based on other international reports, have noted the strong link between opportunities for professional development, teacher motivation and effectiveness. OECD TALIS results (2009) highlight a strong positive relationship between CPD and teachers’ self-confidence and efficacy, with consequences on their overall job satisfaction.

Access to CPD in the developing world may be even more valuable as, first, in low-income countries the training quality of entry into teaching is often lower than in developed ones (Mulkeen, 2010), and, second, they particularly face the challenge of deployment. Teachers in remote and rural schools often find it more difficult to access opportunities for CPD, which further lowers their morale and job satisfaction (ITFT, 2010). Yet preferential access to qualification upgrading opportunities or advantageous professional development schemes are known to be effective ways to attract teachers to these locations or to improve retention. The ILO–UNESCO Recommendation states that teachers removed from population centres should be given leave to study more frequently (1966, paragraph 95.3).

In anglophone Africa, government provision of CPD often involves a combination of short training inputs at local centres, and support visits to individual schools locally (Mulkeen, 2010). In Zambia, Malawi and Uganda, the support service uses a network of local centres where much of the CPD is provided. In Gambia and Lesotho, the provision of support relies on mobile support staff at local schools (“cluster monitors” in Gambia, “district resource teachers” in Lesotho). In Liberia, provision of CPD is carried out locally by NGOs. In Uganda, a network of coordinating tutors provides support through centres serving a cluster of schools. While the provision of CPD at local centres allows greater coverage, and permits teachers from local schools to meet and share experiences, support in individual schools provides greater opportunities to observe teachers and offer one-on-one support. Both approaches seem valuable in delivering opportunities for CPD in hard-to-reach areas.

Mulkeen (2010) reports a few cases of demand-driven provisions, where CPD needs are identified by school leaders and teachers themselves at local level. In Zanzibar, the management of each training centre is empowered to identify training needs locally, and to organize events to meet those needs, often drawing on expertise from secondary teachers. In Malawi, groups of secondary schools are combined into clusters and given a budget (US$100 in 2007) per term to facilitate meetings between schools to consider matters such as HIV, gender, management, and curriculum. Zambia has a particularly sophisticated three-tier support structure, with school level in-service education and training committees, zonal centres and district centres.

Provisions of CPD for ECE educators, too, remain quite diverse in a range of developing countries, whereas the need for support to in-service education remains acute across all regions, and particularly in sub-Saharan Africa. Support measures for small-scale teacher resource centres in rural and remote areas can help reduce the professional isolation of ECE educators (ILO, 2012b). Countries in Africa, Asia and the Caribbean have
adopted a great variety of approaches. In Morocco, each province has a pre-school resource centre providing continuing education and pedagogical support to teachers. In Kenya, ECE staff in workplace-based centres benefit from enterprise leave and funding for professional development opportunities in official ECE networks. The SERVOL Training Centre in Trinidad and Tobago organizes in-service training for the region. In spite of recent progress, though, generally the coverage of all educators in most countries remains far from universal.

As with general education, universal and sustained access of TVET teachers and trainers to CPD is not a given, in both developed and developing countries (ILO–UNESCO, 2010; ILO, 2010). Some countries, mainly high-income, have specifically targeted these gaps (France, Hungary, Italy, Ireland, see CEDEFOP, 2009). In Australia, CPD in TVET is rather extensive across the range of providers and the country, and 6 per cent of the salary package is dedicated to continual training provision for tertiary TVET staff in remote areas. Despite the range of provision, the latest survey of TVET training (2010) found that current professional development opportunities meet only 55 per cent of the requirements of TVET trainers (Mitchell and Ward, 2010).

A.3. Teaching and learning conditions

The recent CEART reports, including 2009, indicate concern with evidence of a general decline in the teaching and learning environment in both the developed and developing world. These concerns include excessive pupil–teacher ratios or class sizes, growing classroom insecurity and reduced infrastructure/teaching support materials.

A.3.1. Pupil–teacher ratios (PTRs)

Particularly dramatic conditions in low-income countries, due to growing demographic trends coupled with substantial budget constraints, prompted the Tenth Session of CEART to recommend that governments and education authorities reduce or maintain class sizes at adequate levels, and to observe the Education For All benchmark of 40 pupils per class, which in developing countries can be approximated at a pupil–teacher ratio of 40:1, the most widely used international ceiling for this measure (EFA GMR, 2010).

However, the two measures are not the same. The PTR measures the overall level of teacher deployment (OECD, 2011). High PTRs may signify an overstretched teaching staff, while low ratios may indicate the availability of additional capacity (UIS GED, 2011). As such, PTR is often treated as a proxy for measuring educational quality. Some studies point to the positive relation between low PTRs and learning outcomes (EFA GMR, 2010). Class size is the average number of students per class, calculated by dividing the number of students enrolled by the number of classes (OECD, 2011). Some evidence supports a positive relationship between smaller class size and aspects of teachers’ working conditions and outcomes (e.g. allowing for greater flexibility for innovation in the classroom, improved teacher morale and job satisfaction) (Hattie, 2009; OECD, 2009; OECD, 2011). Across Europe, PTRs range from 9:1 (Denmark, Lithuania, Malta, Iceland, Liechtenstein) to 22:1 (Turkey) at primary level, and between 10:1 and 15:1 at secondary level. Since 2000, the PTR has declined in two-thirds of countries by an average of two pupils per teacher in primary education and by one pupil in secondary education. Class sizes, though, have remained between 25 and 35 students at all levels (including pre-primary) (Eurydice, 2012).

Between 1990 and 2009, PTRs in primary education remained stable or decreased in all regions except in sub-Saharan Africa, where the PTR increased from 36:1 to 45:1, notably in Benin (31:1 to 45:1) and Ethiopia (41:1 to 58:1) (UIS GED, 2011). In contrast,
Lesotho and Senegal considerably reduced their primary PTRs, from 55:1 to 34:1 and 58:1 to 30:1, respectively. The primary PTR remained high (39:1), but did not increase, in South and West Asia during this period. In secondary schools, over the same period, PTRs remained stable for all regions except South and West Asia, where they increased slightly. With a current ratio of 31:1, the region has the highest PTR for secondary education. Three regions have by far the lowest PTRs in secondary education, which have been relatively stable for the past two decades: Central and Eastern Europe (11:1), Central Asia (11:1), and North America and Western Europe (12:1) (UIS GED, 2011).

These findings are echoed by the 2011 EFA GMR. PTRs within low-income countries as a group are above the world average at every level, and the gap is particularly acute in primary education (table 2). The highest PTRs are to be found in SSA and among South and West Asian countries, the regions facing the most dramatic challenges of teacher supply.

Table 2. PTRs for level of education clustered by group of countries

<table>
<thead>
<tr>
<th>Pre-primary education</th>
<th>Primary education</th>
<th>Secondary education</th>
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<tbody>
<tr>
<td></td>
<td>2008</td>
<td>Change since 1999 (%)</td>
</tr>
<tr>
<td>World</td>
<td>20</td>
<td>-1</td>
</tr>
<tr>
<td>Low-income countries</td>
<td>25</td>
<td>3</td>
</tr>
<tr>
<td>Lower middle-income countries</td>
<td>25</td>
<td>-3</td>
</tr>
<tr>
<td>Upper middle-income countries</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>High-income countries</td>
<td>15</td>
<td>-19</td>
</tr>
</tbody>
</table>

Source: EFA GMR, 2011.

National average PTRs may conceal large disparities within countries, with marginalized areas or groups facing particular disadvantages (EFA GMR, 2010; Mulkeen, 2010). A recent review of teacher deployment patterns examining differences across regions in ten countries in sub-Saharan Africa found that PTRs might vary by a factor of three (Pôle de Dakar, 2009). While low ratios are often found in rural areas with very dispersed populations, high ratios tend to be concentrated in areas marked by poverty and acute disadvantage, and, in general, in urban areas (Zhang et al., 2008). In Kenya, the national ratio of pupils to trained pre-primary teachers is 54:1; however, in the arid, very poor and largely pastoral district of Turkana, the ratio is 123:1 (Ruto et al., 2009). In Uganda, northern regions affected by conflict were marked by pupil–teacher ratios in excess of 90:1 – nearly double the national average (EFA GMR, 2010).

Because of deployment disparities in qualified teachers in developing countries, a more accurate proxy indication of the quality of education systems is the ratio of pupils to trained teachers, which, generally, tends to be higher than the pupil–teacher ratio. Countries including Madagascar, Mozambique, Sierra Leone and Togo have ratios of pupils to trained teacher in excess of 80:1. In a majority of other developing countries, the share of trained teachers in the workforce has declined since 1999, in some cases dramatically. In Togo, for instance, it has fallen from 31 per cent to 15 per cent as recruitment has shifted towards contract teachers (section A.1.1).

Moreover, data on the ratio of pupils to female teachers offer valuable indications for the design of deployment policies aiming at the recruitment of female teachers in LDCs, particularly at secondary level and in rural areas (section A.2.1).
A.3.2. Working time

Although statutory working hours and teaching hours only in part determine teachers’ actual workload, they do give valuable insight into the demands placed on teachers in different countries (OECD, 2011). In line with the provisions of the ILO–UNESCO Recommendation, the CEART has found that the proportion of working time spent teaching has remained largely unchanged between 2000 and 2006. This trend has been echoed by further findings from the OECD (2011), reporting that, among OECD countries, this proportion normally ranges from less than 40 per cent (Denmark, Hungary, Iceland, Japan, Poland, Turkey) to 100 per cent (Brazil). However, the number of teaching hours changed dramatically in a few countries (Iliukhina and Ratteree, 2009): it decreased by more than 30 per cent in Denmark at the upper secondary level and increased by more than 25 per cent in the Czech Republic, in Portugal and Spain at lower secondary level (OECD, 2011).

In the majority of high- and middle-income countries surveyed by UNESCO (UIS GED, 2011), the amount of instruction time is higher in primary school, and declines with the increase in level of education, with some exceptions mainly in Latin America and Asia, where secondary teachers have more teaching hours (Argentina, Mexico, Paraguay, Peru, Sri Lanka, Thailand). There is no significant difference in primary and secondary teaching hours in other countries such as Chile, Hungary, Jamaica, Jordan, Malaysia, Philippines and Poland.

Intended instruction time accounts for a large part of public spending on student learning; augmenting it may require an increase in financial costs for hiring more teachers, or for compensating existing teachers to work longer hours. On the other hand, policymakers may decide to increase instruction time by raising the number of working hours of existing teachers with no concurrent increase in remuneration (UIS GED, 2011). This could lead to a decrease in the quality of teaching, if teachers have less time to prepare lessons, and to a decline in the attractiveness of the profession, if the average remuneration decreases substantially.

In developing countries, the amount of real teaching time often differs substantially from the statutory required time due to high levels of teacher absenteeism and to the amount of time spent off task during lessons (EFA GMR, 2011). Recent surveys in Ethiopia, Guatemala, India and Nepal found that children were in class and learning only for a relatively small share of the time schools were officially open (Kingdon and Banerji, 2009; Dowd, 2009; De Stefano and Elaheebocus, 2009). Real teaching time frequently increases across school grades: class sizes shrink as children progress through education, and children who reach the later grades receive more focused tuition. In Bangladesh, students in the early grades receive on average two hours a day of instruction, compared with three-and-a-half hours in the later grades (Financial Management Reform Programme and OPM, 2006).

Adjustments in the schedule of actual instruction time are often required in these contexts. Chronic overcrowding of classrooms throughout the developing world has led many countries to operate double-shift systems in schools (EFA GMR, 2010). These offer potential efficiency gains in terms of numbers of children covered, but may reduce learning achievement, primarily because children spend less time in school, and it may also further diminish incentives for teachers, who are requested to assume a double work burden. Certain systems provide education on a flexible timetable in an accessible environment, with the help of “mobile schools” that follow the community and allow teachers to deliver instruction at times when children are not at work – documented cases are to be found in Ethiopia, Kenya and Ghana (EFA GMR, 2010; Mfum-Mensah, 2009).
A.4. Teacher satisfaction

Addressing the problem of attrition to overcome teacher shortages means finding ways to increase the social status of teachers in the public eye, with remarkable consequences in terms of appropriate teacher policies.

A.4.1. Effects on teacher attrition

As teacher attrition results in a requirement for replacement, understanding its volume and patterns is key for an effective planning of teacher recruitment. Existing data is limited in scope and reliability: the definition of teachers is unclear, and inter-school teacher mobility is sometimes confused with attrition. The data is often not sufficiently detailed to allow analysis of the important differentials associated with age, gender, qualifications, subject area and geographic location (ITFI, 2010). Finally, it is difficult to track teachers who re-enter the profession.

The task is even more complicated in sub-Saharan Africa, given the paucity of data available. In most countries, the two main drivers of attrition are retirement and voluntary resignation (ITFT, 2010). Attrition through retirement is relatively predictable. The existence of a quite young teaching workforce implies low rates of attrition due to retirement (ITFT, 2010). In contrast to what happens among OECD countries, in Africa the teaching force is quite young, reflecting the recent expansion. In Eritrea, in 2006 almost 50 per cent of elementary school teachers were under 30, and in Lesotho half under 40. In Zanzibar, only 12 per cent of teachers are over the age of 50 (Mulkeen, 2010). However, low attrition deriving from the demographic of the teaching force is a temporary phenomenon, and some of the countries in sub-Saharan Africa are already experiencing increasing rates. In general, attrition rates much lower than 5 per cent may arise from exceptional policies 7 (ITFI, 2010). In Eritrea, in 2006, the government had temporarily stopped teacher retirement because of a concern about a shortage of teachers.

Voluntary resignation, the major cause of attrition in Africa, is on the contrary highly volatile, as it varies according to the availability of alternative attractive labour market opportunities and the overall level of satisfaction in the teaching profession. The negative perception of the teaching profession linked to the government not paying salaries on time, nor granting teachers loan facilities, probably plays a critical role (World Bank, 2007). Low salary levels are also often associated with “hidden attrition”: teachers leave their posts de facto and are often absent because they engage in additional income-generating activities.

In Africa, one of the most frequently cited sources of dissatisfaction among teachers is their poor living conditions, particularly in rural areas, where it contributes to a vicious cycle of attrition (Bennell and Akyeampong, 2007; ITFT, 2010).

Another level of inequality concerns female teachers, as their rates of attrition tend to be higher than those of male teachers (Guarino et al., 2004 for the US). The picture is

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7 In a stable system, an average duration of service of 50 years results in retirement of one fiftieth of teachers each year, and an attrition rate of 2 per cent; similarly, an average duration of service of 25 years results in an average attrition rate of 4 per cent (ITFI, 2010). As typical teachers are over the age of 20 when recruited, and retirement ages are between 55 and 60, retirement alone would be expected to account for losses of almost 3 per cent annually. Given that retirement typically accounts for less than half of total attrition, it seems unlikely that any country can sustain attrition rates much lower than 5 per cent. A 5 per cent attrition rate implies that the average teacher recruited remains in service for 20 years before leaving.
varied throughout the developing world. In SSA, the attrition of female teachers may be higher than that of males (ITFT, 2010), as female teachers are often reluctant to take up posts in remote areas, and may be more likely to leave their jobs if unable to find a post near their husbands’ place of work, or to migrate to another school. On the other hand, though, in some communities there are fewer alternative labour market opportunities for women, which may result in lower attrition of female teachers (Mulkeen, 2010).

B. Challenges and good practices in teacher recruitment and deployment

B.1. Recruitment of qualified teachers

In order to meet teacher recruitment (and deployment) needs, additional payments based on teachers’ qualifications, training and performance are common both among OECD and partner countries and low-income countries (OECD, 2011).

In developing countries with a large number of non-qualified teachers, some countries are re-examining teacher salaries and increasing the overall salary scale as part of the civil service reform (Pôle de Dakar, 2011).

In many SSA countries where salary differences are based on teacher qualifications, professional training is a means to increase salaries of teachers who initially lacked qualifications. This association between training and salary premium is meant to contribute to improving the quality of teachers, on the condition that their training was good in terms of content and duration, and adapted to the diversity of professional experience and academic levels (Pôle de Dakar, 2009). The process, however, is not always systematic. In the United Republic of Tanzania, the difference in the base salary between qualified and non-qualified primary teachers is 10 per cent; however, new teachers did not benefit from any salary increase as the country had considerably reduced the proportion of teachers with no qualifications (from 42 per cent in 2000 to under 10 per cent in 2009) thanks to an ambitious programme of having in-service teachers obtain qualifications (Pôle de Dakar, forthcoming).

In certain countries, such as Liberia, different salary scales are used for qualified and non-qualified teachers. In Uganda, qualified teachers benefit from the start from a salary premium representing 65 per cent of the monthly salary of non-qualified teachers, and this premium increases to 89 per cent when they reach the end of their careers.

The magnitude of the national demand for such professional development should not be underestimated, nor its financial implications. In Uganda, latest available data (2006–07) shows that nearly one third of all primary school teachers in the country were non-qualified. Budget limitations and the reliance on external assistance could represent critical constraints to implement these measures in contexts of ever-increasing enrolments; however, they could be highly beneficial to teacher recruitment and as such should be encouraged.

B.2. Recruitment of female teachers

As seen above, continued underemployment of women teachers when compared to education demand in SSA and South Asia, especially in rural areas, is a major concern (ILO–UNESCO, 2009). Due to apprehensions over living in remote and unfamiliar rural communities, female teachers tend to show a preference for urban areas. In Uganda and
Zambia, the share of female teachers in urban primary schools is about 60 per cent, compared with 15 per cent to 35 per cent in rural areas (Mulkeen, 2009).

Setting up specific quotas for female teachers in rural school can be a strategy. In Yemen, the World Bank’s Basic Education Development Project and the Secondary Education Development and Girls Access Project are recruiting female teachers, particularly in remote rural areas, with the aim of increasing the school participation rate of girls (World Bank, 2010). In Bangladesh, a recent government policy requires that 60 per cent of the new teachers recruited be female, for whom the education qualification has been relaxed (UNESCO IBE, 2011). In India, an important recent initiative has been the setting up of residential schools for girls from low castes and minority communities in disadvantaged areas where shares of female teachers are far below the national average.

Besides recruiting mostly women in the teaching staff, these schools provide female teachers with a safe residential environment, contributing in turn to higher proportions of female teachers being employed (Commonwealth Secretariat and UNESCO, 2011). The Indian scheme Kasturba Gandhi Balika Vidyalaya (KGBV, in operation since 2004 and now running across eight Indian states) provides for a reservation of seats for girls belonging to low castes or minority communities, and of posts to full- and part-time female teachers.

Furthermore, the provision of special allowances (and of rural areas living quarters) has already been successfully used to enhance female teacher recruitment in recent years in India. Also, where rural areas are more developed and well connected to the rest of the country, women are more likely to accept posting, as the case of Kerala shows (Commonwealth Secretariat and UNESCO, 2011).

Changing gender imbalances in recruitment and deployment requires governments to ensure the necessary levels of investment within carefully regulated and gender-sensitive frameworks. However, the CEART Ninth Session has noted that educational spending during the last decade has dropped, both at national and at international level. A finding that has been echoed by the Tenth Session: too many countries are devoting less than the benchmark of 4 to 6 per cent of GDP to education agreed upon by the High-level Group on EFA in Oslo in 2008.

B.3. The rural–urban divide in teacher deployment

As the Tenth Session of CEART recognized in 2009, developing countries face a range of teacher recruitment challenges. Critical among these is ensuring an equitable balance between the urban and rural areas.

In response to local needs, several countries have developed “satellite school” models: schools are organized into clusters consisting of a central, relatively well-resourced school and several smaller satellites of one-room schools with one person teaching more than one grade in the same class (EFA GMR, 2010). In the Plurinational State of Bolivia, clusters of schools (núcleos) have been created to expand the reach of education into under-served areas: each cluster comprises a central school, offering the full cycle of grades up to secondary school, and several satellite schools offering the first three primary grades in multigrade classes. Another approach is to create satellite schools that provide a full primary cycle, such as those developed for remote rural communities in Burkina Faso (Theunynck, 2009).

Multigrade teaching, too, has been used to address some of the staffing issues in remote districts. To date, experiences in Africa have been mixed, and partially disappointing where teachers have low-skill levels and are not supported after training and
where class sizes are large. Its cost effectiveness is also under scrutiny: although savings could be made through recruiting fewer teachers, smaller class sizes and additional learning materials could offset these financial savings (WB Education, 2010). In Liberia, multigrade approaches are used in the Accelerated Learning Programme where curricula are condensed. In South Sudan, multigrade education is used in community schools because they cannot afford more than one teacher. More attention should be paid to providing formal support through policy changes and adjustments to pre-service training.

However, both strategies appear more effective in addressing short-term local needs for inclusive education rather than in tackling the challenge of deployment. Also, in the lack of a coherent policy framework, these systems may pose increasing demands on education systems, particularly in terms of financial and political support. In northern Kenya, improved political representation of arid areas has gone hand-in-hand with the development of broad-based strategies to overcome education marginalization among pastoral areas by incorporating traditional knowledge in the curriculum, providing grants to mobile schools, establishing feeder schools within local communities, and modifying the formal system to suit the nomadic calendar. The scheme succeeded in recruiting teachers (particularly females) from nomadic areas through affirmative action measures (Gettleman, 2009; Ruto et al., 2009). At central level, prioritizing equity within national budgets can play a vital role in equalizing educational opportunities between richer and poorer populations and regions, as redistributive public spending can help to narrow gaps (EFA GMR, 2010).

Policies to ensure that teachers reach the schools where they are needed also rely on incentive packages, often successfully offered to teachers to encourage them locating in these less attractive areas. Incentives such as extra pay, teacher housing and other non-monetary benefits can be used. In Zambia, the incentive payment is calculated on a sliding scale, based on distance from the nearest tarred road. In 2001, Uganda introduced a hardship allowance of 20 per cent of salary for “hard-to-reach” areas (INEE, 2011). Such programmes may help to redistribute quality teachers to where they are most needed (Mulkeen, 2006). In order to be effective, though, these incentives need to be significant in scale, carefully targeted to remote schools, and tied to remaining in the post. Moreover, recruiting local people as teachers and providing ongoing support may help to address the deployment problem.

A starting point in addressing issues of teacher recruitment and deployment is needs assessment, which should identify bottlenecks such as shortages of teachers, schools and teaching materials. The development of an education management information system (EMIS) is key. This is technically challenging though, and requires considerable capacity, which has to be developed progressively over many years (EFA GMR, 2011). Yet comforting examples exist. By 2006, four years after the end of its civil war, Sierra Leone had put in place a basic information system to conduct a comprehensive school census to identify areas of need (Goldsmith, 2010). In Liberia, in 2007, the UN peacekeeping mission provided security for conducting a school census for the EMIS to identify regions and schools with low attendance and shortages of teachers and materials (European Commission, 2009; UNICEF, 2010). If adequately funded, EMIS can play an important role in supporting a more effective teacher deployment throughout single countries, as the cases of Bangladesh, Ghana and Nigeria have shown in 2006 (InfoDev, 2006).

**Conclusions and policy considerations**

In most developed countries, teacher salaries augmented in real terms between 2000 and 2009. However, most countries saw a fall in teachers’ statutory salaries relative to GDP per capita. In developing countries, during the recent crisis, increases in nominal salaries have not kept pace with the large cumulative rises in local prices as a result of the
local food inflation. In real terms, the salary levels of primary school teachers, and their purchasing power, have decreased considerably over the period 2007–09.

In several low-income countries in sub-Saharan Africa, secondary school teachers are compensated at a much higher rate than their primary-level counterparts. Among middle-income countries, the differences in salaries for primary and secondary school teachers are less pronounced. In most high-income countries, teacher salaries are comparable to GDP per capita, and salary differences between primary and secondary school teachers are negligible.

Despite funding constraints, increasing teacher salaries is a major need for most governments in developing countries, given the very low levels of teacher pay that prevail in most of these contexts. In other countries, there is an explicit goal to restrain the growth in teacher employment, which could free up resources for higher salaries, but potentially at the expense of worsened teaching and learning conditions. Policies to hire large numbers of contractual or community teachers help to meet shortages and increase enrolments but drive down average salary levels and attractiveness of teaching as a profession.

The availability of opportunities for professional development plays a key role, boosting teachers’ self confidence and efficacy, with consequences on their overall job satisfaction. Access to CPD in the developing world may be even more valuable especially given that the coverage of all educators throughout single countries remains far from universal, and against deployment needs.

PTRs within low-income countries as a group are above the world average at every level, and the gap is particularly acute in primary education. The highest PTRs are to be found in sub-Saharan Africa and among South and West Asian countries. Three regions have the lowest PTRs in secondary education: Central and Eastern Europe, Central Asia, and North America and Western Europe – and these ratios have been relatively stable for the past two decades. Marginalized areas or groups of the population may face particular disadvantages: in sub-Saharan Africa within some countries the PTRs vary by a factor of three. While low ratios are often found in rural areas with highly dispersed populations, high ratios tend to be concentrated in areas marked by poverty and acute disadvantage.

Urban–rural differences create another layer of inequality: ratios tend to be higher in urban areas. Trained teachers (together with female teachers) are more likely to choose to work in urban areas.

In a majority of developing countries, the share of trained teachers in the workforce, a more accurate proxy indication of the quality of education systems, has declined since 1999, in some cases dramatically. The latest UIS data on the share of female teachers illustrate that, between 2001 and 2009, the percentage of female teachers has remained quite stable or has slightly increased. Sub-Saharan Africa has the lowest proportion of primary female teachers. In secondary school, for the countries for which data are available, female teachers represent a very small proportion of the teaching force. The picture is way worse if we look at female trained teachers, as their already low primary share declines even more sharply in secondary school.

In most of the developed (OECD) countries, the amount of time teachers spend teaching remained largely unchanged between 2000 and 2009. However, the number of teaching hours changed dramatically in a few countries. In the majority of selected high- and middle-income countries, the amount of instruction time is higher in primary school, and declines with the increase in level of education.

In developing countries, the amount of real teaching time often differs substantially from the statutory required time due to high levels of teacher absenteeism and to the
amount of time spent off task during lessons. Several surveys from a number of Asian and African countries have shown that regular rural government teachers would spend only a part of their in-school time teaching. Many developing countries operate in double-shift systems to address chronic overcrowding of classrooms. Or, in order to address the peculiar situation of particular areas or groups within low-income countries, certain systems provide education on a flexible timetable in an accessible environment (e.g. “mobile schools”).

The quality of teaching, and the level of motivation among teachers, is likely to be influenced by the resources made available to support their daily work, and by the way these resources are managed. Overall, differences in quality across schools are linked to the teaching environment. The problem is particularly severe in post-conflict States, characterized by a general lack of infrastructure and a high demand for reconstruction. In low-income countries, urban–rural divides figure prominently in school quality disparities. Research in five low- and lower middle-income countries found that teacher absenteeism rates were lower in schools with better infrastructure.

The worsening working conditions appear to be a major cause of departure of young and qualified teachers from the profession, with quite worrying consequences in terms of de-professionalization of teaching.

Effects on teacher attrition, specifically in rural areas and for female teachers, are varied but can be substantial in a context of already severe shortages. In sub-Saharan Africa, studies conducted by the World Bank between 2006 and 2007 found attrition rates ranging from 2 per cent to 10 per cent. In most countries, the two main drivers of attrition appear to be retirement and voluntary resignation. Low salary levels are often also associated with “hidden attrition”: teachers leave their posts de facto and are often absent because they engage in additional income-generating activities. In Africa, one of the most frequently cited sources of dissatisfaction among teachers is their poor living conditions, particularly in rural areas. Rural schools typically experience high staff turnover, and have the highest vacancy rates.

In developed countries, the attrition of female teachers seems in many cases higher than that of male teachers. Throughout developing countries, the attrition of female teachers may be higher than that of males, especially in remote areas, where female teachers are often reluctant to take up posts. On the other hand, though, in some communities there are fewer alternative labour market opportunities for women, which may result in lower attrition of female teachers. Moreover, women keep experiencing difficulties in obtaining promotions to higher levels. In OECD countries, male teachers move up the career ladder far more easily to become school principals. In developing countries, recent research documents a high female presence in leadership positions in primary school (even if lower than their overall prevalence in the teaching force for that level of education) and a predominance of male teachers in managerial positions at secondary level.

Filling the teacher gap significantly depends on countries’ capability to address qualitative factors notably related to teacher terms and conditions of employment, particularly in disadvantaged areas. This, in turn, affects the availability of qualified and motivated individuals to enter and remain in teaching, and, therefore, determines the chances to fulfil teacher recruitment needs for achieving EFA goals.

Efforts to recruit teachers include additional payments or other rewards for teachers in order to motivate them entering or retaining the profession, such as family allowances and bonuses for working in certain locations, and higher initial salaries for higher-than-minimum teaching qualifications early in a career, or, later on, may take the form of financial remuneration and/or reduction in the number of teaching hours.
The recruitment of qualified teachers represents a major challenge for LDCs. In countries where salary differences are based on teacher qualifications, professional training can be linked to a salary premium on completion of successful training. The magnitude of the national demand for such professional development should not be underestimated, nor its financial implications, especially where budget limitations represent critical constraints to implement these measures in contexts of ever-increasing enrolments. However, these strategies could be highly beneficial to teacher recruitment and as such should be encouraged.

The recruitment of female teachers should be particularly enhanced, especially at secondary education level and in rural areas, where women frequently refuse posting. Good practices to this end involve the setting up of specific quotas for female teachers in remote schools, together with the provision of special allowances and of safe living areas for female teachers working in difficult places. Favouring women’s career progression would also be key for eliminating a reason of frustration, enhancing their motivation. Targeting recruitment strategies by means of bursaries, material incentives and fast-track career schemes to focus on women in under-represented areas would be fundamental, together with introducing affirmative action in selection decisions.

Ensuring an equitable balance between the urban and rural areas is another key challenge. Several countries have developed “satellite school” models or multigrade teaching as short-term responses to expand the reach of education into under-served areas. In order to effectively meet deployment needs, incentives such as extra pay, teacher housing and other non-monetary benefits can be used. In the lack of a coherent policy framework, though, these systems may pose increasing demands on education systems, particularly in terms of financial and political support: prioritizing equity within national budgets can play a vital role in equalizing educational opportunities between richer and poorer populations and regions, as redistributive public spending can help to narrow gaps. Appropriate in-service training opportunities in disadvantaged areas would also be critical, perhaps in the form of preferential access to qualification upgrading opportunities or advantageous professional development schemes. The provision of CPD through a combination of short training inputs at local centres and support visits to individual schools locally is proving quite effective in Africa.

A starting point in addressing issues of teacher recruitment and deployment is needs assessment. Even if technically challenging and costly, EMIS, when adequately funded, can identify gaps to be targeted and play an important role in supporting a more effective teacher deployment throughout single countries.
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