

## Chapter 3

# Country efforts: increasing momentum

Progress towards the EFA goals is steady, but too slow in terms of the target dates, especially in sub-Saharan Africa, South and West Asia, and the Arab States. The first time-bound goal, gender parity in primary and secondary school by 2005, has already been missed. Accelerating the pace of change sufficiently to meet the goals for 2015 requires more attention to planning, strategies, resources and key policy issues in many countries. This chapter examines selected elements from a sampling of national EFA plans, considers public financing and household costs (with updated information on fees at the primary level) and continues the 2005 Report's attention to teachers, focusing particularly on projected needs. It stresses the necessity of maintaining momentum towards gender parity, despite the disappointment of the missed goal, and the growing urgency of other crucial issues: inclusion, education in difficult country circumstances, response to the HIV/AIDS pandemic, and assuring students' health and safety.

**National education plans must address all the EFA goals**

**Planning for EFA**

**National policy priorities and EFA**

The 2000 Dakar Framework for Action called for comprehensive national EFA plans to be drawn up by 2002. These time-bound, action-oriented plans must include specific reforms addressing each of the six EFA goals, along with a sustainable financial framework.<sup>1</sup> Poverty Reduction Strategy Papers (PRSPs)<sup>2</sup> address the Millennium Development Goals (MDGs) with a similar sense of purpose. One of the two Millennium Project reports on education and gender equality calls on developing country governments to put bold strategies in place by 2006, and recommends that existing PRSPs should be aligned with the MDGs (Millennium Project, 2005a).

Previous EFA Global Monitoring Reports have addressed particular aspects of EFA plans and PRSPs. A review of the seventeen PRSPs completed by July 2002 suggested that EFA and the education MDGs were receiving increasing attention in poverty alleviation and education plans (Bagai, 2002). The 2003/4 Report reviewed PRSP content related to education and gender and noted evidence that countries were beginning to set national targets related to EFA and the MDGs (Whitehead, 2003). The 2005 Report highlighted ambitious country policies for delivering EFA and the effective use of aid for national plans. In the present Report, Chapter 9 examines the inclusion of literacy in PRSPs (UNESCO-IIEP, 2005a). A review of the education content of the eighteen PRSPs completed by May 2003 (Caillods and Hallak, 2004) finds that, while the papers' education chapters became better and more realistic over time, policy priorities remained insufficiently adapted to individual country circumstances and the education chapters were not well integrated into the broader strategies. The financial sustainability of the PRSP education plans is also a question, since they seem at once too optimistic about domestic financing and heavily dependent on external aid; in addition, the plans devote relatively little attention to literacy or early childhood care and education (ECCE).

To review plans requires analysis of individual papers since there is no database with comprehensive coverage of goals, strategies, financing or other elements of EFA plans, PRSPs and other relevant country education planning documents, such as sector plans. UNESCO collects data on EFA plans only on an occasional

basis.<sup>3</sup> Future Reports will further examine PRSPs and other national planning documents. As a first step, this Report uses two new sources from UNESCO institutes: a survey by the International Institute for Educational Planning (IIEP) of EFA plans in thirty-five countries<sup>4</sup> and an analysis by the International Bureau of Education (IBE) of country papers prepared for the 2001 and 2004 sessions of the International Conference on Education. Neither survey, however, can provide information on implementation, financial allocations or general support for national strategies by government or civil society.

Most of the thirty-five EFA plans are relatively recent and long-term: 79% were issued between 2001 and 2005, and 58% cover ten-year periods, especially those of countries in sub-Saharan Africa and the Arab States.<sup>5</sup>

Table 3.1 shows the coverage of individual EFA goals in thirty-two of the plans. The top priority is clearly universal primary education (UPE), addressed by increasing mass schooling in South Asia and sub-Saharan Africa, and by targeting disadvantaged groups in other regions, where enrolment rates are relatively high. Goal 3, meeting the learning needs of young people and adults through equitable access to appropriate learning and life-skills programmes, is apparently the most disregarded, cited in only one-third of the countries in the sample. Of the thirty-two countries, only Benin, India, Indonesia, Kenya, Paraguay, the Sudan and Uzbekistan have plans that include all six goals, while Bangladesh, Brazil, Côte d'Ivoire, Mongolia, Myanmar, Nepal, Nicaragua and the Niger give explicit attention to at least five of the goals. Box 3.1 shows some of the strategies these fifteen countries are adopting.

The IIEP work suggests that central government financing levels may not match countries' ambitious

1. UNESCO has commissioned an evaluation of its role in supporting the development of EFA plans, to be completed by the end of 2005.

2. Fifty-six countries had developed full or interim PRSPs by July 2005; see [www.imf.org/external/np/prsp/prsp.asp](http://www.imf.org/external/np/prsp/prsp.asp)

3. See UNESCO surveys of EFA plans at [http://portal.unesco.org/education/en/ev.php-URL\\_ID=9328&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/education/en/ev.php-URL_ID=9328&URL_DO=DO_TOPIC&URL_SECTION=201.html)

4. Countries were selected from three groups, derived from work done for the 2002 Report (UNESCO, 2002b): those with a high chance of achieving all three quantitative EFA goals by 2015, those likely to miss one of the goals by 2015 and those at serious risk of not achieving any of the three goals by 2015.

5. The UNESCO-IIEP survey also identified some evidence of countries translating their long-term plans into action plans covering three to five years, such as Morocco's 'Medium-Term Action Plan for 2004-2007' and Nicaragua's 'Strategic Priorities for the Period 2005-2008', both issued in 2004 (UNESCO-IIEP, 2005b).

**Table 3.1: Coverage of the EFA time-bound goals in planning documents of thirty-two countries**

Country	Number of countries in the sample	Goal 1 ECCE	Goal 2 UPE	Goal 3 Youth/adult learning	Goal 4 Literacy	Goal 5 Gender	Goal 6 Quality	Number addressing all six goals	Number addressing at least five goals
Sub-Saharan Africa	10	5	10	3	6	8	9	2	4
Arab States	4	3	4	2	4	1	2	1	1
Central Asia	3	3	3	2	3	2	2	1	2
East Asia and the Pacific	3	3	3	1	3	2	3	1	2
South and West Asia	5	4	5	1	4	3	5	1	3
Latin America and the Caribbean	7	6	7	3	5	2	6	1	3
<b>Total</b>	<b>32</b>	<b>24</b>	<b>32</b>	<b>12</b>	<b>25</b>	<b>18</b>	<b>27</b>	<b>7</b>	<b>15</b>

Source: UNESCO-IIEP (2005b).

### Box 3.1 National strategies addressing EFA goals: some country examples

Major strategies adopted by some or all of the fifteen countries in the IIEP sample whose EFA plans address at least five of the six EFA goals include:

- ECCE strategies putting priority on underserved and disadvantaged groups (seven countries). Mongolia is developing incentives for home-based ECCE measures for herding populations.
- UPE strategies giving particular attention to removing access barriers to quality schooling (all fifteen countries). Kenya is introducing free primary education, targeted school meal programmes, a textbook fund for poor households and a bursary fund to enable students from poor families to make the transition from primary to secondary education.
- UPE strategies that highlight inclusion and equity of access for severely disadvantaged groups such as street children (eleven countries). In India, strategies aimed at working children include the scaling up of operations such as back-to-school camps, summer schools, bridging courses, continuous academic and emotional support after children join school, and programmes such as the National Child Labour Project initiated by the Ministry of Labour, through which education is provided to working children.
- Strategies to reduce illiteracy (eight countries). Benin's comprehensive approach includes measures to increase demand, improve the quality of literacy programmes, increase funding and strengthen decentralized management systems.
- Strategies to increase women's and girls' access to education (ten countries), particularly incentives to reduce private costs, provision of separate boarding facilities, increased hiring of female teachers, elimination of gender stereotypes in learning materials, and sensitization of teachers and managers to girls' needs and circumstances. Côte d'Ivoire recognizes the importance of legal and policy frameworks to address the many social dimensions of inequality.
- Strategies to improve quality (all fifteen countries). Bangladesh, Benin, Côte d'Ivoire, India, Kenya and the Niger cite the need for new and refurbished classrooms. The Plan for the Quality of Brazilian Education focuses on teachers, including ways to improve the qualifications of underqualified teachers; recruitment; and nationwide professional development, especially in Portuguese and mathematics, for elementary school teachers.

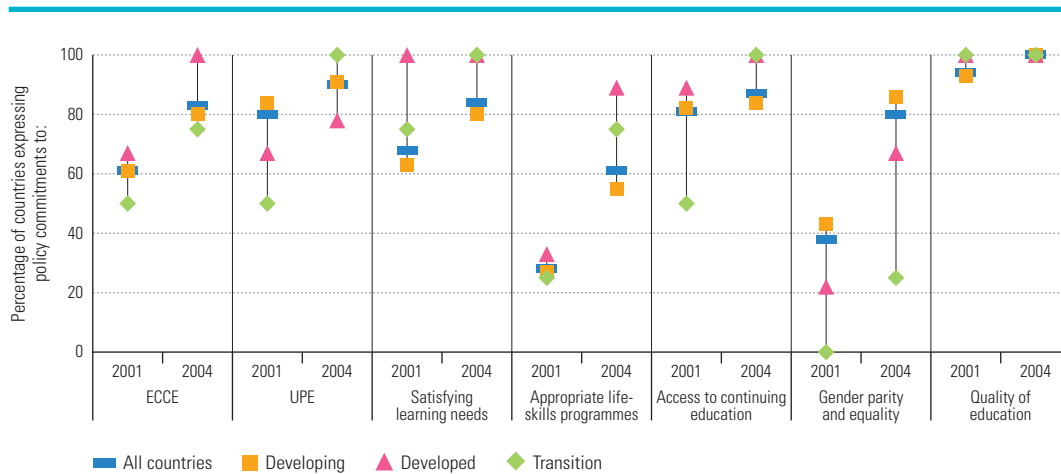
Source: UNESCO-IIEP (2005b).

The Plan for the Quality of Brazilian Education focuses on teachers

national goals. For the thirty countries for which it was possible to obtain financial data, ten spent less than 3% of GDP on education, fourteen spent 3% to 5% and six spent 5% to 9%. For the thirty countries for which it was possible to examine trends in education expenditure over 2000–2004, budget allocations generally increased in Latin America but declined in sub-Saharan Africa.

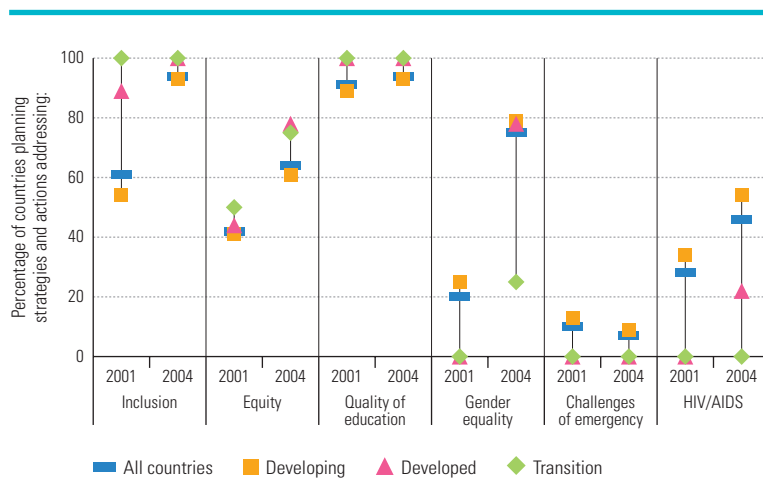
The IBE survey analysed reports (rather than planning documents) made by sixty-nine countries participating in the 2001 and 2004 International Conferences on Education (Amadio et al., 2005). Nearly all countries identified UPE and education quality as high priorities on both occasions (Figure 3.1). There was a noticeable increase in attention between 2001 and 2004 to gender parity and equality, and life-skills

**Figure 3.1: Policy commitments related to EFA goals in 2001 and 2004 conference reports by sixty-nine countries**



Source: Amadio et al. (2005), drawing on reports to International Conference on Education.

**Figure 3.2: Strategies and actions on issues affecting EFA goals reported to 2001 and 2004 conferences by sixty-nine countries**



Source: Amadio et al. (2005), drawing on reports to International Conference on Education.

programmes for young people and adults, especially in Central and Eastern Europe, East Asia and the Pacific, and sub-Saharan Africa.<sup>6</sup> References to the importance of the MDGs also increased. Attention is increasingly being paid as well to inclusion, equity, quality, gender equality, situations of emergency and HIV/AIDS (Figure 3.2).

**The contribution of civil society**

A key strategy identified at Dakar as critical to achieving EFA is assuring the engagement and participation of civil society in the formulation, implementation and monitoring of national

strategies (UNESCO, 2000b). There is growing evidence from various regions of increasing civil society participation in education policy processes, notably the preparation of national EFA plans (Schnuttgen and Khan, 2004; UNESCO, 2003b). Bangladesh is of particular interest (Box 3.2), but there are also developments in Latin America, where civil society organizations (CSOs) in Brazil and El Salvador are involved in monitoring public spending on education (Schnuttgen and Khan, 2004), and in sub-Saharan Africa, where the Global Campaign for Education is initiating activities in West Africa, and CSOs in various countries (notably Malawi, Uganda, the United Republic of Tanzania and Zambia) are monitoring budgets and outputs related to poverty reduction policies, especially those having to do with education.

Despite these initiatives, challenges to full participation by CSOs remain. The most pressing one is the degree of space and opportunity that governments provide. In some countries, this is not available; in many countries, for example, teacher organizations and unions are not fully engaged in national policy discussions (see section below on Teachers for EFA). Even where such space is created, it is often limited to time-bound thematic consultations rather than involving sustained, institutionalized dialogue on national education policy as a whole. Moreover, many CSOs have insufficient capacity and resources to participate in technical and time-consuming policy-related discussions. Overall, it remains uncertain whether the first decade

6. The apparent discrepancy between the IBE survey's finding of increasing priority on learning opportunities and life-skills programmes and the IIEP analysis showing no such trend is probably related to the nature of the conference documents, which reflect conference themes rather than providing comprehensive coverage.

**Box 3.2 Civil society involvement in EFA planning and monitoring**

In Bangladesh, the Campaign for Popular Education (CAMPE), a national coalition of NGOs, has a reputation for innovation and comprehensive coverage of issues affecting education. It pioneered the Education Watch project, which has sought to track the efficiency of primary education and literacy in Bangladesh. The first Education Watch Report was published in 1999. It and its successors have served as powerful tools, collecting and disseminating assessments of progress in education reform. The main themes of the Education Watch Reports have included internal efficiency, quality of education and

literacy. The latest edition is titled *Quality with Equity: The Primary Education Agenda*. External to the government, Education Watch provides a rich database for alternative policy formulation by CSOs. CAMPE not only works closely with research institutions and NGOs in Bangladesh, but has also approached other national NGOs in South Asia as well as a regional network, the Asian South Pacific Bureau of Adult Education, to become its partners in extending the programme across South Asia.

Sources: Campaign for Popular Education (1999, 2001, 2002, 2003, 2005); Schnuttgen and Kahn (2004).

The level of public spending on education is of high political significance

of this century will be characterized by a more participatory approach than was the case in the 1990s (UNESCO, 2002b and 2003b).

educational circumstances and the extent of private financing. There is, however, clearly a minimum level below which government expenditure cannot sink without serious consequences for quality, as the 2005 Report argued.<sup>7</sup> Moreover, the level of public spending is often interpreted as a reflection of government commitment to education and is thus of high political significance.

**Financing EFA**

**The importance of public financing**

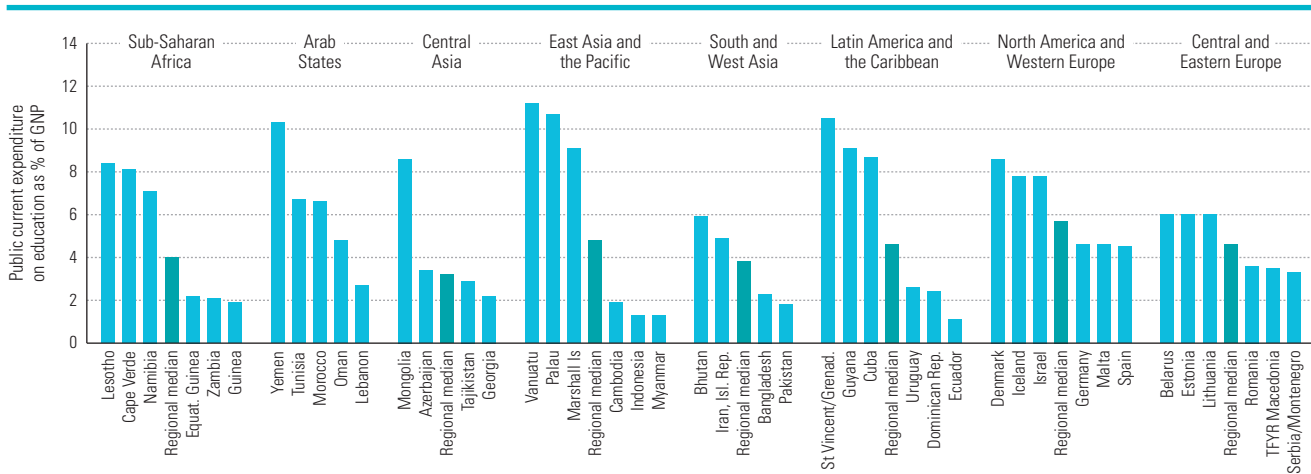
Reaching the EFA goals requires adequate and predictable funding for education (Colclough with Lewin, 1993; Mehrotra, 1998; Bruns et al., 2003). It has been argued that governments should invest at least 6% of GNP in education (Delors et al., 1996). The appropriate level of spending will, in practice, depend on many factors, including countries' demographic, economic, political and

Figure 3.3 provides a global picture of the volume of public education spending relative to levels of national income.<sup>8</sup> While there is substantial variation within regions, regional medians are highest in North America and Western Europe, and in East Asia and the Pacific. Total public spending on education is close to 2%

7. See, in particular, Chapter 4 (UNESCO, 2004a).

8. Because of relatively poor country reporting of financial data to the UNESCO Institute for Statistics, the country coverage in this section on education finance is less extensive than that in the discussion of enrolment in Chapter 2. In addition, as spending by subnational levels of government is generally excluded, public funding is underestimated in some countries, particularly those with federal systems.

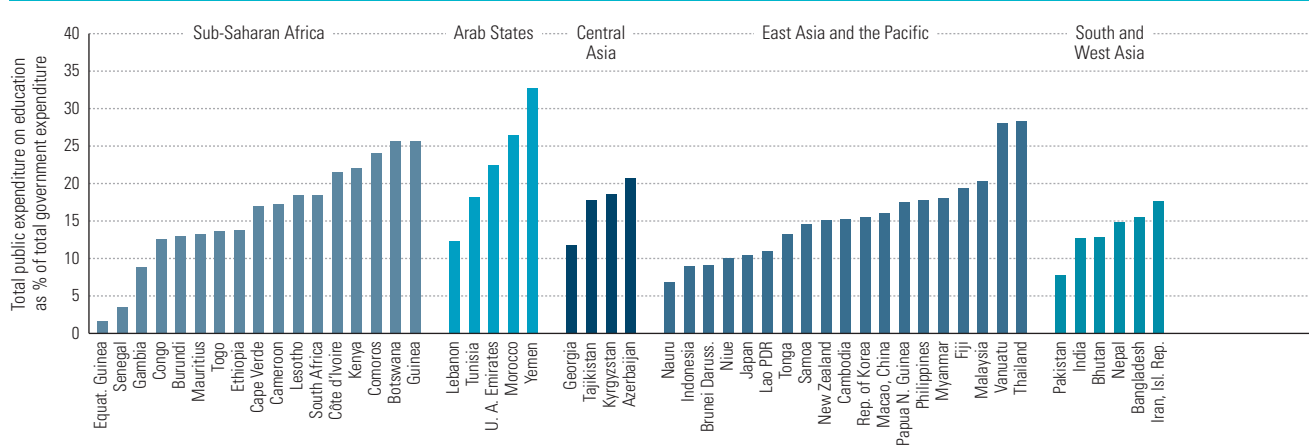
**Figure 3.3: Public current expenditure on education as percentage of GNP, 2002**



Note: The figure shows regional medians and countries with the highest and lowest values. No regional median was calculated for Arab States because data were available for too few countries. See source table for detailed country notes.

Source: Statistical annex, Table 11.

**Figure 3.4: Public expenditure on education as percentage of total government expenditure, 2002**



Note: See source table for detailed country notes.  
Source: Statistical annex, Table 11.

**Figure 3.5: Public education expenditure as a percentage of GNP, 1998 and 2002**



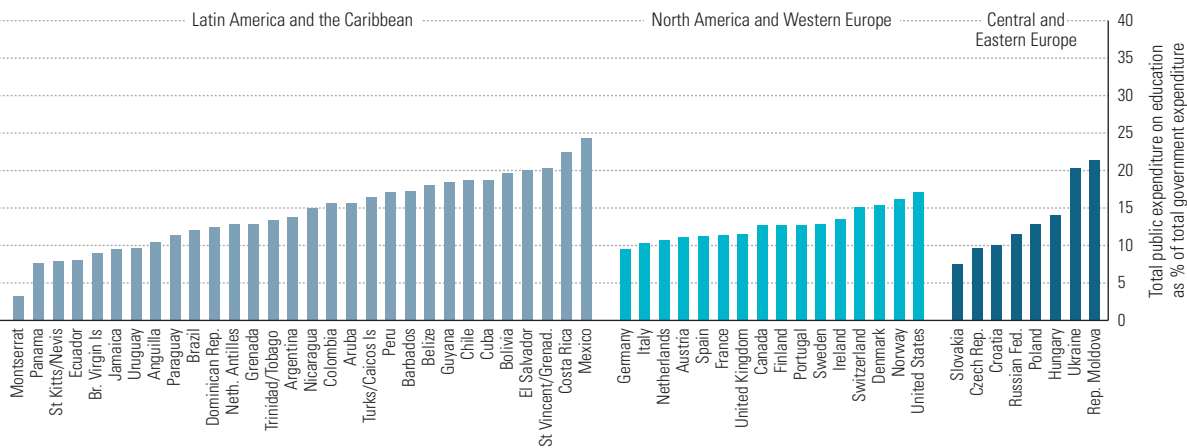
Source: Statistical annex, Table 11.

of GNP in Cambodia, Ecuador, Equatorial Guinea, Georgia, Guinea, Indonesia, Myanmar, Pakistan and Zambia, but exceeds 6% of GNP in about one-quarter of the countries with data available (see statistical annex, Table 11).

The percentage of the government budget allocated to education completes the picture of governments' commitment to education, reflecting the degree of priority they give to education relative to other national expenditure. Figure 3.4 shows that the share of government expenditure devoted to education ranges from about 10% to 30%. While government expenditures on education in high income countries in North America and Western Europe rarely reach 15%, more than half of the countries in sub-Saharan Africa with data available surpass this level. Education accounts for one-quarter or more of total government budget in Botswana, Guinea, Mexico, Morocco, Thailand, Vanuatu and Yemen. It is interesting to note that some countries like Botswana and Guinea, which allocate a small proportion of their GNP to education, give high priority to it in their government budget.

**Spending on education has increased since 1998**

The share of education in national income (GNP) increased between 1998 and 2002 in about two-thirds of the countries for which data are available (Figure 3.5). It more than doubled in Cameroon, Cape Verde, Madagascar, Malaysia, and Saint Vincent and the Grenadines. Similarly,



**Table 3.2: Primary net enrolment ratios, education expenditure and teachers, 1998 and 2002**

	Primary net enrolment ratio (%)		Education expenditure as a % of GNP		Education expenditure as a % of government budget		Primary pupil/teacher ratio	
	1998	2002	1998	2002	1998	2002	1998	2002
Niger	26	38	m	m	12.9	15.9	41:01	42:01
Ethiopia	36	47	4.3	4.6*	13.8**	m	46:01	65:01
Guinea	45	66	1.8	1.9	25.8	25.6**	47:01	45:01
U. R. Tanzania	46	68	3.0	m	21.1***	24.4***	38:01	53:01
Lesotho	65	86	10.2	8.4	25.5	18.4	44:01	47:01
Madagascar	65	79	1.9	2.9	10.2	m	47:01	52:01

Notes: m = missing; \* = 2001, \*\* = 2000, \*\*\* = World Bank data.

Sources: Statistical annex, Tables 5, 10A and 11; World Bank database (2004).

education's share in government budget increased in more than half the countries with data available (see statistical annex, Table 11). Data compiled by the International Monetary Fund and the World Bank confirm this trend. After debt relief measures went into effect, seventeen of nineteen highly indebted poor countries in sub-Saharan Africa increased their education expenditure as a share of GDP, and nine increased it as a share of total government expenditure (Hinchliffe, 2004).

This generally positive trend was, however, somewhat offset by declines in some countries. Decreases in spending shares were particularly significant in the Congo, Ecuador, Saint Kitts and Nevis, South Africa and Togo, for both indicators.

Some African countries, including Guinea and Lesotho (Table 3.2), have improved access to education without increasing public spending on education as a share of GDP or of government

budget. This has been achieved mainly by raising pupil/teacher ratios, however – dramatically so in Ethiopia and the United Republic of Tanzania.

#### ***Distribution across levels of education also matters***

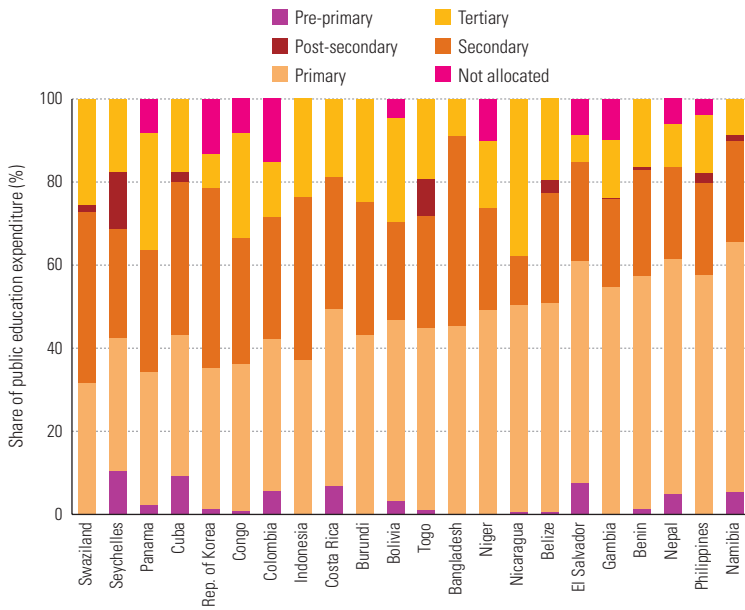
If the level of public resources allocated to education is crucial to the achievement of EFA, their distribution matters as well. Figure 3.6 presents the distribution of education expenditure by sub-sector.<sup>9</sup> The set of countries having low primary enrolment rates allocates a relatively high share of total public expenditure to this sub-sector, while countries where UPE is close to being achieved allocate a lower share to primary.

Figure 3.7 shows an emerging shift from primary to secondary education between 1998 and 2002 for countries that have reached UPE. Countries such as Poland and the Republic of

**The level of public resources allocated to education is crucial to the achievement of EFA, their distribution matters as well**

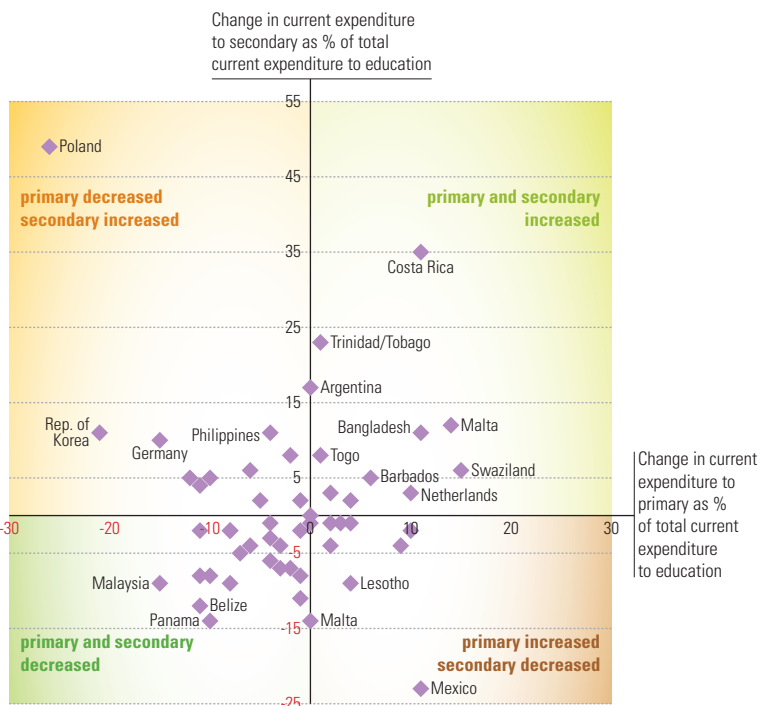
9. Comparable data exist for only twenty-two countries.

**Figure 3.6: Share of public education expenditure by level, 2002**



Note: Countries are sorted by increasing share of expenditure on primary education.  
Source: UNESCO Institute for Statistics database.

**Figure 3.7: Share of primary and secondary education in total public current expenditure on education, percentage change from 1998 to 2002**



Source: UNESCO Institute for Statistics database.

Korea have clearly increased the priority they give to financing secondary education. Others, like Togo, have managed to improve the share of public education expenditure on secondary education, while maintaining that of primary education.

**Efficiency can free up resources**

Besides issues of distribution and equity, ways to increase efficiency must be addressed. Where efficiency can be improved, this can free up resources for areas of growing importance, such as investments in quality and access, and in secondary education and adult basic education as well as primary education. Internal efficiency concerns the way in which resources are used in the education system. It includes drop-out and retention (discussed in Chapter 2) as well as the allocation of resources within education levels to teachers and to non-salary inputs such as books and teaching materials (discussed in the 2005 Report, with its emphasis on quality).

Institutional efficiency relates to the institutional context in which public spending takes place. It requires more attention in the education sector than it has so far received. Central education ministry resources do not always reach the schools for which they are intended. The percentage of non-wage public education spending that actually arrived at designated schools was 16% in Senegal (World Bank, 2004a) and 40% in Zambia (World Bank, 2003b). Various factors are behind this problem, including corruption (UNESCO, 2004a). Holding education stakeholders accountable for their performance can help reduce resource leaks and hence increase education efficiency. Extensive examples in the education literature support the idea that community input improves the quality of services and ensures that providers do their job properly (Mookherjee, 2001). A particularly interesting example is that of Uganda (Box 3.3).

Implicit in the various dimensions of efficiency are notions of equity. If public spending is not concentrated where people are geographically concentrated, it is not equitable or efficient. If it subsidizes the more affluent at the expense of the poor, it is not equitable or efficient. Such patterns of inequitable and inefficient education spending are very common. Box 3.4 illustrates the problem, using the example of Mozambique.

**Box 3.3 Social accountability to improve education spending in Uganda**

Uganda's 1996 Public Expenditure Tracking Survey, the world's first such initiative, was launched because, despite a substantial increase in public spending on education, official reports showed no increase in primary enrolment. The survey provided a stark picture of public funding on the front lines. On average, in 1991–95, 87% of the annual spending (per student) was either diverted for private gain or was used by district officials for purposes unrelated to education. Some 70% of schools received very little or nothing. The picture improved slightly over time, but even in 1995 only 20% of total per capita funding from the central government reached the schools.

Following publication of the findings, the central government began releasing monthly inter-governmental transfers of public funds in the main newspapers and on radio, and requiring primary schools to post information on inflows of funds. A new tracking survey evaluating the information

campaign showed a great improvement. While schools on average still did not receive the entire grant and delays continued, misuse of funds was reduced from 78% in 1995 to 18% in 2001. A before-after assessment, comparing outcomes for the same schools in 1995 and 2001 and controlling for a broad range of school-specific factors, suggests that the information campaign can explain two-thirds of this massive improvement.

With a relatively inexpensive policy action – provision of mass information – Uganda managed to reduce dramatically the amount of spending wasted in a public programme aimed at increasing primary education. Poor schools, which before the campaign had been less able to claim their entitlement from district officials, benefited most from the information campaign.

Source: Dehn et al. (2003).

Higher education privatization raises equity issues

**The role of private financing**

Private contributions, made by parents and by communities, are an integral part of what society invests in education. Private contributions are not only directed to private schools but are also very common at public schools and institutions. Within a group of seven diverse countries, for example, the share of private expenditure in total spending at the primary and secondary levels ranges from 7% in the United States to 47% in Jamaica (Figure 3.8). Private contributions typically increase substantially at the tertiary level, with the proportion up to 81% in Chile. The size of the share signals a significant process of higher education privatization, which raises equity issues, in particular when poor people do not have proper access to financial markets. In India, private contributions are higher at both primary and secondary levels than in tertiary. This could suggest that government subsidies to the tertiary sector come at the expense of improving access and quality in primary and secondary schooling.

**Fees are still a major obstacle**

The Dakar Framework for Action calls for free and compulsory primary education of good quality, drawing on the 1948 Universal Declaration of Human Rights, which established education as a fundamental human right, and the 1989 Convention on the Rights of the Child, which

**Box 3.4 Equity in public education spending in Mozambique**

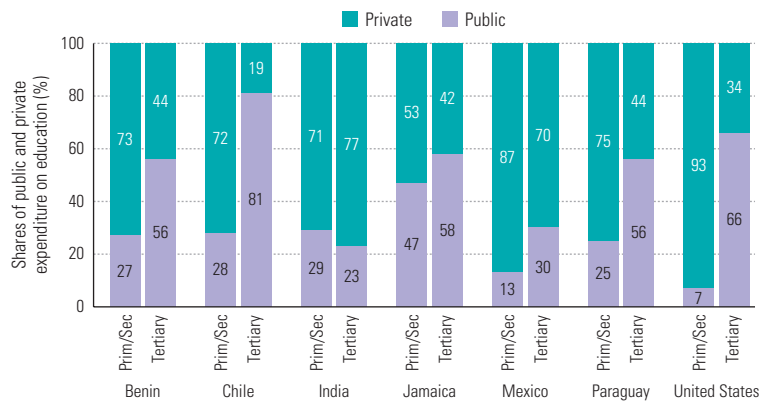
Public spending on education in Mozambique is not equitable geographically or in terms of distribution among income groups. Lower primary education spending is roughly equitably distributed across all income groups, with the poorest 50% benefiting from 51% of the spending. The picture shifts dramatically as the education level increases, however, with the poorest 50% benefiting from only 35% of upper primary spending and only 19% of post-primary spending. Nor is spending aligned geographically with population concentrations (Table 3.3). Maputo, the capital, contains some 6% of the population but receives almost one-third of all public education spending. The North and, especially, Centre regions are severely underfinanced in relative terms, even assuming that some of the Maputo expenditure is for national rather than regional educational institutions, such as secondary schools and the university.

**Table 3.3: Regional distribution of population and public education spending**

Share (%)	North	Centre	South excluding Maputo	Maputo city	Total
Population	32.5	42.6	18.8	6.1	100
Education	18.8	26.2	22.7	32.2	100

Source: Heltberg et al. (2001).

**Figure 3.8: Share of public and private education expenditure by level, 2002**



Note: Data for Mexico and United States are from 2001.  
Source: UNESCO Institute for Statistics/OECD (2005).

affirms in Article 28 that parties to the convention<sup>10</sup> should make primary education 'compulsory and available free to all'.

Despite increased recognition of the gains that result from eliminating fees at the primary level, and several well-publicized cases of fee reduction (e.g. in Kenya, Uganda and the United Republic of Tanzania), 89 out of 103 countries<sup>11</sup> surveyed by the World Bank for this Report (Bentaouet-Kattan, 2005) still have some type of fees in primary education, whether legal or illegal (Table 3.4).

Since 2000, several countries have reduced or eliminated primary-school fees; they include

**Box 3.5 Household education expenditures in Cambodia**

The Priority Action Program (PAP) was launched in Cambodia on a pilot basis in ten provinces in 2000 and expanded to the whole country in 2001. One purpose of the pilot was specifically to 'reduce the cost burden on the poorest to increase participation of their children in Grades 1 to 9 (Cambodia Ministry of Education, Youth and Sport, 2001). Registration charges, formerly common, were prohibited, as were other obligatory contributions. As a consequence of the programme, the share of private recurrent expenditure has been dramatically reduced, particularly for the poorest households.

Households still must cover various expenses, however, related to:

- *registration*: sometimes requires photographs for identity cards, which cost more and are required more often in rural than in urban areas;
- *uniforms*: required in most schools, though enforced less strictly in primary than in secondary schools and in remote rural areas than in urban areas;
- *equipment*: for sports, required in urban and semi-urban areas;

Cape Verde, Costa Rica, Guatemala, Kenya, Nepal, Peru, Senegal, the United Republic of Tanzania and Zambia. China has announced policy changes in rural areas. Even when direct fees are eliminated, however, other household costs can remain high (Boyle et al., 2002). In Cambodia, for instance, many types of household costs impede access and learning (Box 3.5)

**Teachers for EFA**

Teachers play a central role in EFA achievement, as the 2005 Report emphasized.<sup>12</sup> Indeed, a long-term vision, strong governmental leadership and a sufficient supply of motivated, respected, supported and supervised teachers are all crucial to the success of education policies and reforms focusing on expansion and quality improvement (UNESCO, 2004a). Teachers also represent the bulk of public spending on education (Figure 3.10), and their future supply is a critical issue in assessing both education quality and financial stability. Another important aspect is the provision

10. The convention has been ratified by 192 countries – that is, all signatories except Somalia and the United States.

11. Only countries for which fee information could be collected are represented in the survey.

12. See, in particular, the section on better teachers in Chapter 4 (UNESCO, 2004a).

**Table 3.4: Fees still exist in a large number of countries**

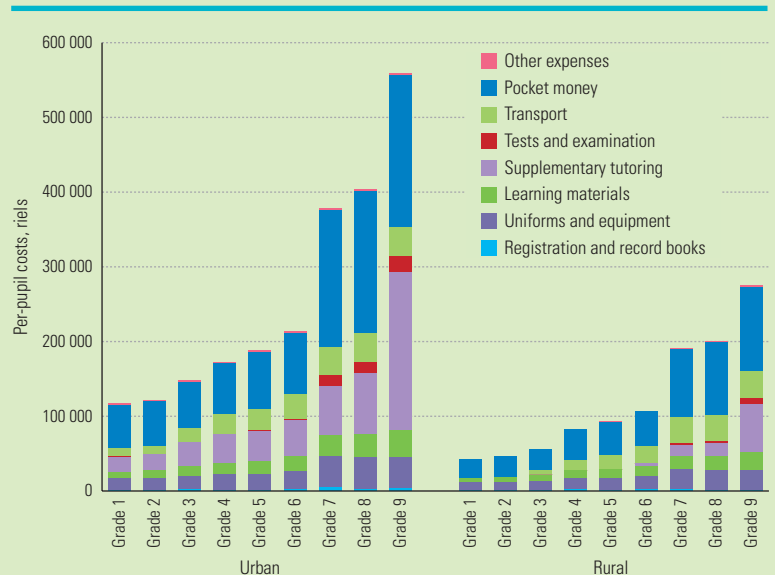
<b>Legal fees</b>	Albania; Argentina; Armenia; Azerbaijan; Benin; Bhutan; Bosnia/Herzegovina; Bulgaria; Burundi; Cameroon; Cape Verde; Chad; Comoros; Costa Rica; Côte d'Ivoire; Dominica; Dominican Rep.; Egypt; El Salvador; Eritrea; Grenada; Guinea; Guinea-Bissau; Guyana; Haiti; India; Iran, Isl. Rep.; Jordan; Lebanon; Madagascar; Maldives; Mauritania; Morocco; Niger; Papua New Guinea; Paraguay; Peru; Philippines; Romania; Russian Fed.; Rwanda; Solomon Islands; South Africa; Swaziland; Tajikistan; Thailand; TFYR Macedonia; Timor-Leste; Togo; Trinidad/Tobago; Turkey; Uruguay
<b>Illegal fees</b>	Bolivia; Brazil; Colombia; Ethiopia; Ghana; Honduras; Lao PDR; Lesotho; Liberia; Mexico; Mozambique; Namibia; Nigeria; Panama; Tonga; Uganda; Ukraine; Viet Nam
<b>Both types of fees</b>	Burkina Faso; China; D.R. Congo; Djibouti; Ecuador; Georgia; Indonesia; Kenya; Kyrgyzstan; Latvia; Mali; Mauritius; Mongolia; Nicaragua; Palestinian A. T.; Rep. Moldova; Vanuatu; Venezuela; Yemen

Note: Data was collected informally from World Bank task teams and may not reflect the most recent changes in policy and practice at the country level.  
Source: Bentaouet-Kattan (2005).

- *learning materials*: items such as notebooks, exercise books, pens and pencils;
- *supplementary tutoring*: often needed in urban areas; cost varies, peaking in primary school at grade 6 and in lower secondary school at grade 9;
- *tests and examinations*: charges for testing materials and fees for examinations, charged by the Ministry of Education, Youth and Sport; overall costs were reduced by PAP yet remain substantial, especially in later grades;
- *transport*: bicycle maintenance and repair, with costs varying by region, bicycle use and gender; poor roads in remote and rural areas create higher costs than in urban and semi-urban areas;
- *pocket money*: covering snacks, breakfast, sometimes lunch, with costs varying greatly by socio-economic group; may be offset by school meal programmes such as those offered by the World Food Programme, targeting poor rural communities;
- *other expenditure*: gifts for teachers, collections during various festivals and ceremonies.

As Figure 3.9 shows, pupil expenses increase with grade levels and differ between urban or rural areas.

**Figure 3.9: Per-pupil household costs, by grade and area, 2004**



Source: Bray (2005).

of non-salary teaching inputs. This element can sometimes be crowded out in developing countries, where personnel costs often represent over 90% of total public education spending. This section examines issues of teacher supply and quality, mainly at primary level, including projections to 2015.

### Pupil/teacher ratios

While the impact of class size on educational outcomes remains a matter of debate, and depends on educational strategies and pedagogical implementation, the pupil/teacher ratio (PTR)<sup>13</sup> is an important indicator of education quality. In general, the ratio is below twenty pupils per teacher in the vast majority of countries in North America and Western Europe, Central and Eastern Europe, and Central Asia, regions where enrolment ratios are also high (Table 3.5).

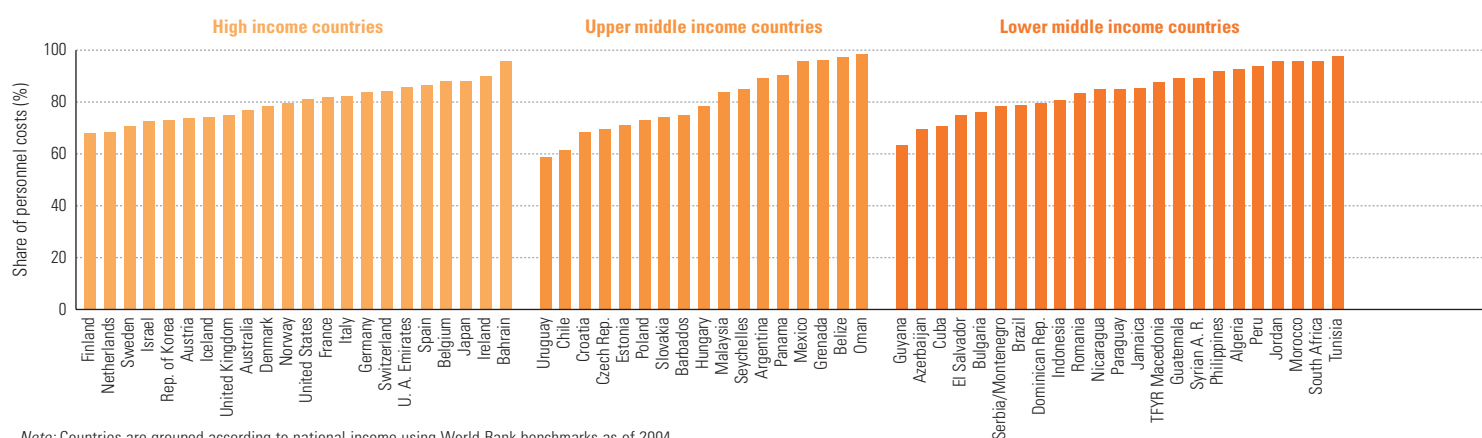
Most countries in the Arab States, East Asia and the Pacific, and Latin America and the Caribbean have twenty to thirty-four pupils per teacher. PTRs are much higher in sub-Saharan Africa, typically exceeding 40:1 and rising to almost 70:1 in some countries, including Chad,

the Congo and Mozambique. Such high PTRs make it difficult to provide primary education of good quality.

The number of pupils per teacher declined between 1998 and 2002 in more than two-thirds of the 143 countries with data available (see statistical annex, Table 10A). Decreases were particularly significant in countries with already low PTRs, but also occurred in high-PTR countries such as Djibouti, Gabon, Nepal and Togo. This generally positive global trend has some key exceptions, however. PTRs were below 40:1 in 1998 in Afghanistan, India and the United Republic of Tanzania, yet had risen well above that level by 2002. The ratio doubled from 32:1 to 61:1 in Afghanistan, where large numbers of new pupils, especially previously excluded girls, enrolled in primary school but few new teachers were hired. PTRs also increased in several countries that eliminated or reduced school fees, including Benin, Cambodia, the Congo, Ethiopia and Uganda. In addition, the number of teachers remains problematic in the very countries that need to increase the coverage of their primary school systems most significantly.

13. Several limitations should be kept in mind when comparing numbers of teachers, percentages of trained teachers and PTRs. For example, the PTR depends on an accurate count of teachers who have teaching responsibilities. In some countries and regions, part of the teaching staff may work part time, and full-time equivalent numbers are not always available. In many resource-constrained countries, forms of schooling organization such as multi-grade and double-shifting may not be taken into account in the PTR, which is a national average. Data on teaching staff may include other education personnel as well, and separate data on the latter are difficult to collect at the international level.

Figure 3.10: Share of personnel costs in total public current expenditure on education by level of national income, 2002



Note: Countries are grouped according to national income using World Bank benchmarks as of 2004.

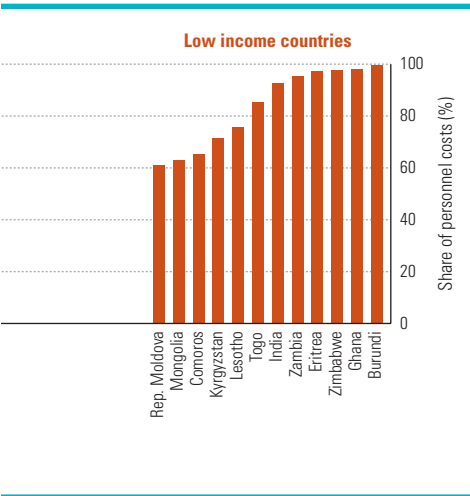
Source: UNESCO Institute for Statistics database.

Table 3.5: Grouping of countries according to primary pupil/teacher ratios, 2002

Regions	Below 15	15–24	25–34	35–44
Sub-Saharan Africa (40)	Seychelles (1)		Mauritius, Botswana, Cape Verde, Namibia, Swaziland, Ghana, Sao Tome/Principe, Kenya (8)	South Africa, Togo, Gabon, Comoros, Sierra Leone, Gambia, Zimbabwe, Nigeria, Niger, Côte d'Ivoire, Zambia, Equatorial Guinea, Guinea-Bissau (13)
Arab States (18)	Qatar, Saudi Arabia, Kuwait (3)	United Arab Emirates, Bahrain, Lebanon, Iraq, Jordan, Oman, Tunisia, Egypt, Syrian A. R. (9)	Algeria, Morocco, Sudan, Djibouti (4)	Palestinian Autonomous Territories, Mauritania (2)
Central Asia (7)	Georgia (1)	Azerbaijan, Armenia, Kazakhstan, Tajikistan, Kyrgyzstan (5)	Mongolia (1)	
East Asia and the Pacific (25)	Brunei Daruss., Niue (2)	Marshall Is, New Zealand, Cook Islands, Malaysia, Japan, Indonesia, Thailand, China, Tonga, Kiribati (10)	Viet Nam, Tuvalu, Macao, Samoa, Fiji, Vanuatu, Lao PDR, Rep. of Korea, Myanmar (9)	Philippines, Papua New Guinea (2)
South and West Asia (9)		Maldives, Sri Lanka, Islamic Republic of Iran (3)		Nepal, Bhutan, Pakistan, India (4)
Latin America and the Caribbean (37)	Bermuda, Cuba, Br. Virgin Is, Cayman Is (4)	Turks/Caicos Is, Anguilla, Barbados, Bahamas, Argentina, St Kitts/Nevis, St Vincent/Grenad., Aruba, Trinidad/Tobago, Montserrat, Grenada, Dominica, Suriname, Netherlands Antilles, Belize, Uruguay, St Lucia, Costa Rica, Bolivia, Ecuador, Panama (21)	Peru, Brazil, Guyana, Mexico, Colombia, Paraguay, Jamaica, Guatemala, Chile, Honduras (10)	Nicaragua, Dominican Rep. (2)
North America and Western Europe (24)	Denmark, Norway, Iceland, Italy, Portugal, Sweden, Luxembourg, Belgium, Greece, Andorra, Austria, Switzerland, Spain, Germany, Israel, United States (16)	Monaco, Finland, United Kingdom, Canada, Malta, France, Ireland, Cyprus (8)		
Central and Eastern Europe (18)	Hungary, Poland, Slovenia, Latvia, Estonia (5)	Lithuania, Belarus, Czech Republic, Russian Fed., Bulgaria, Romania, Croatia, Slovakia, Ukraine, Rep. Moldova, Serbia/Montenegro, TFYR Macedonia, Albania (13)		
Total	32	69	32	23

Note: Countries are listed in ascending order of PTR. See source table for detailed country notes.

Source: Statistical annex, Table 10A.



### Are there enough teachers to achieve UPE?

Teacher numbers are generally too low and PTRs generally too high in the countries furthest from attaining the UPE goal. Projections for high-PTR countries indicate that a major teacher shortage is looming (Motivans, 2005). Just maintaining current enrolment ratios while moving to a PTR of 40:1 by 2015 generally requires a faster growth rate for teacher numbers than most of these countries experienced between 1998 and 2002. This situation primarily reflects still-increasing school age populations, especially in sub-Saharan Africa. Growth rates above 9% per year would be needed in Chad, the Congo, Ethiopia, Mali and Uganda, for instance (Figure 3.11).

The numbers of additional teachers needed to increase gross enrolment ratios to 100% and achieve a 40:1 PTR by 2015 are so high that this is probably impossible in several countries. Burkina Faso, Mali and the Niger, where GERs are still low, would each need to increase teacher supply by 20% per year. The number of teachers in the Niger would need to quadruple, from 20,000 to 80,000 in the next ten years or so. Even in countries that would need only moderate teacher supply growth rates, such as Bangladesh (4%) and Cameroon (3%), this would involve huge absolute increases: from 49,000 to 71,000 teachers in Cameroon and from 315,000 to 482,000 in Bangladesh.

The HIV/AIDS pandemic further accentuates the issue of teacher shortages in Africa (Desai and Jukes, 2005). There is ongoing controversy about the impact of HIV/AIDS on education system staffing, reflecting different sources of data on teacher mortality (Boler, 2003).<sup>14</sup> A new study of Eritrea, Kenya, Mozambique, the United Republic of Tanzania and Zambia suggests that HIV/AIDS can considerably exacerbate teacher turnover rates and place significant strain on education ministries' human resource requirements, doubling teacher mortality rates in the worst cases (Box 3.6). Better data on HIV/AIDS prevalence and mortality among teachers are needed, yet only 45% of one major donor's education projects in Africa include specific HIV/AIDS indicators (Boler, 2003).

To achieve UPE, the Niger will need to quadruple the number of teachers in ten years

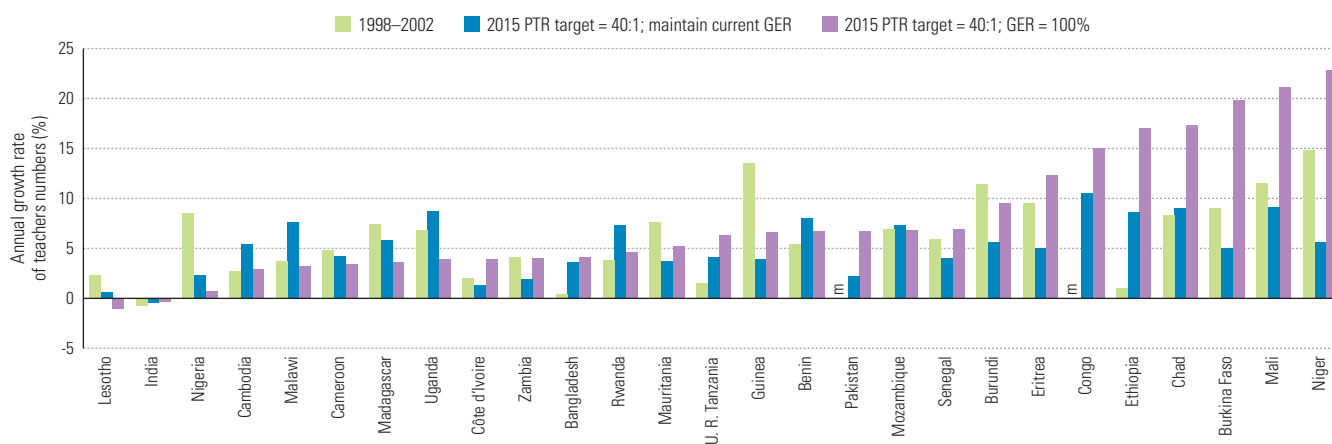
	45-54	55 and above
	Burkina Faso, Guinea, Eritrea, Lesotho, Senegal, Burundi, Madagascar, Uganda, United Republic of Tanzania (9)	Cameroon, Mali, Rwanda, Benin, Malawi, Ethiopia, Congo, Mozambique, Chad (9)
	Timor-Leste (1)	Cambodia (1)
		Bangladesh, Afghanistan (2)
	10	12

14. Two categories of evidence exist: evidence from school-based surveys and educational personnel records, and estimates derived from projection models, which constitute an independent source of evidence. So far the two approaches have produced no agreement on the likely impact of HIV/AIDS on education systems (Bennell, 2005a and 2005b).

### Teacher qualifications and training

The teacher issue is not just one of numbers; it is also one of training and conditions of service. As the 2005 Report indicated, large proportions of primary school teachers lack adequate academic

**Figure 3.11: Current and projected annual growth rates of teacher numbers, 1998–2002 and 2015**



Notes: m = missing. Only countries with primary PTR above 40:1 are included.  
 Source: Calculations based on UNESCO Institute for Statistics database.

**Box 3.6 The impact of HIV/AIDS on education systems in five countries of sub-Saharan Africa**

The most common form of data-based evidence of the impact of HIV/AIDS on teachers comes from mortality rates taken from education management information systems, which include personnel and payroll records. A second form of primary data comes from school-based surveys in which randomly selected head teachers and professional staff in education ministries are asked to respond to questionnaires about teacher absenteeism and mortality. Projection models are essential for independently quantifying the potential impact of HIV/AIDS. A projection model was applied to Eritrea, Kenya, Mozambique, the United Republic of Tanzania and Zambia.

Consistent with UNAIDS methodology, the modelling approach allowed teacher infection rates to vary from one-half to double the infection rate in the general population. Baseline population-level HIV prevalence was allowed to vary between the upper and lower ends of the most recent UNAIDS estimates. Where independent estimates were available, they were included in the low-high range of AIDS-related teacher mortality.

In the best-case scenario, Kenya, the United Republic of Tanzania and Zambia will each lose 600 teachers to AIDS in 2005 alone, and Mozambique will lose over 300, based on ~0.5% annual AIDS mortality, the least plausible rate in these countries. In the worst-case scenario, Kenya, the United Republic of Tanzania and Zambia will each lose 1,500 to 3,000 teachers to AIDS in 2005 alone, and Mozambique will lose over 1,100, based on up to 3.1% annual mortality, the highest plausible rate in these countries.

Absenteeism is a significant, rising problem in several service sectors, but data-based research cannot clearly quantify or ascribe absenteeism to AIDS only. In surveys of head teachers in southern Africa, one in five saw AIDS-related absenteeism as a serious problem for the quality of education. They report that 47% of absenteeism is attributed to attending funerals and 30% to sickness. Reliable data on absenteeism due to HIV/AIDS are scarce, not least because of the stigmatization and loss of benefits resulting from declaring one's seropositive status.

**Table 3.6: Impact of HIV/AIDS on education in five sub-Saharan countries, 2005**

	Eritrea			Kenya			Mozambique			U. R. Tanzania			Zambia		
	medium	low	high	medium	low	high	medium	low	high	medium	low	high	medium	low	high
Total teacher mortalities due to AIDS	35	7.0	130	1 620	700	3 020	675	340	1 150	1 290	605	2 010	1 030	580	1 500
% total attrition	12.4	2.1	30.9	18.0	7.5	29.6	33.2	16.6	43.1	19.9	9.3	31.0	40.4	23.3	48.8
Annual teacher mortality due to AIDS	0.3	0.07	1.5	0.8	0.4	1.8	1.4	0.7	2.3	1.1	0.5	1.9	2.1	1.2	3.1
Teacher-years of absenteeism due to AIDS	37	7	130	1 590	690	2 930	730	370	1 240	1 290	610	2 200	1 090	605	1 580
% of total teacher-years	0.4	0.1	1.5	0.8	0.4	1.8	1.5	0.8	2.9	1.1	0.5	2.3	2.2	1.3	3.9

qualifications, training and mastery of content, especially in developing countries (UNESCO, 2004a). New data confirm this. In only one-quarter of the approximately 100 developing countries with data available in 2002 had all or almost all primary teachers received at least some pedagogical training (see statistical annex, Table 10A). More than 20% of primary school teachers lack training in more than half the countries in sub-Saharan Africa, and more than 30% in half the countries of South and West Asia. In South Asia, despite the rather low minimum qualifications in several countries, many teachers have not met the national minimum requirements (Govinda and Biswal, 2005).

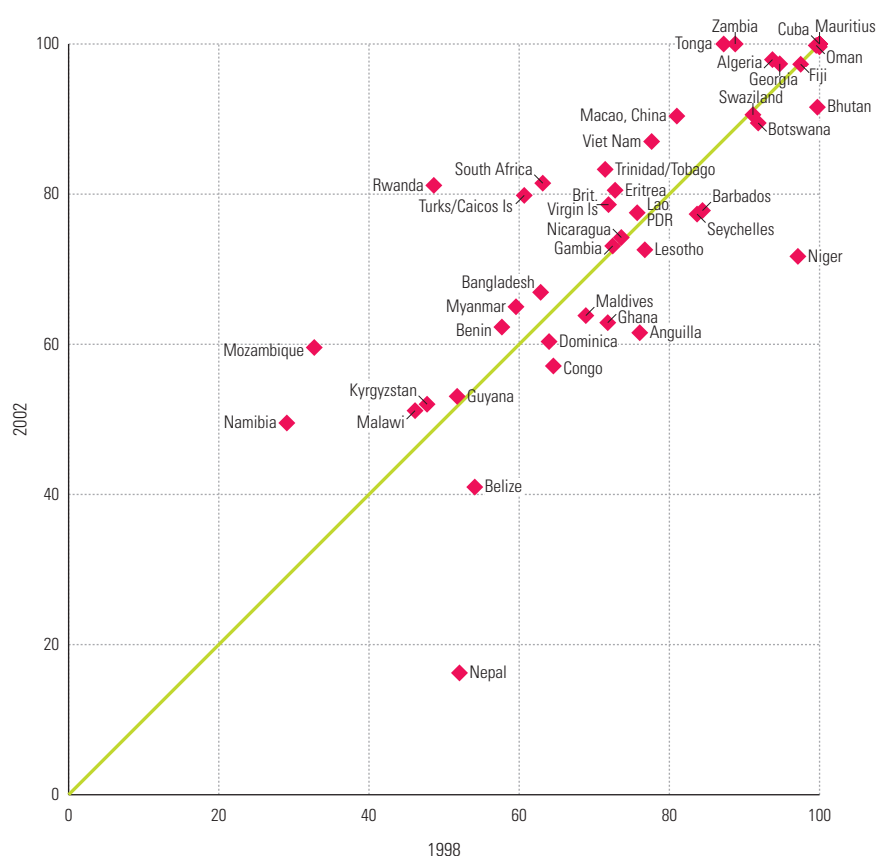
Nevertheless, the teacher-training situation is improving. The proportion of trained primary teachers increased between 1998 and 2002 in

Table 3.6 provides estimates of AIDS-related absenteeism. In the best-case scenario, 600 to 700 teacher-years of absenteeism for personal illness due to HIV/AIDS will affect Kenya, the United Republic of Tanzania and Zambia in 2005 alone, while Mozambique will experience a loss of almost 400 teacher-years. In the worst case, these countries will experience 1,200 to 3,000 teacher-years of absenteeism.

It was possible to estimate the financial impact of HIV/AIDS on the education ministries of Mozambique and Zambia. In Mozambique, AIDS-related teacher absenteeism for personal illnesses will likely cost US\$3.3 million in 2005 alone, plus US\$0.3 million in increased teacher-training costs. In the worst-case scenario, the costs could rise to US\$6.0 million per year, in the absence of any behavioural changes or the provision of anti-retroviral drugs to education personnel. In Zambia, the equivalent figures are US\$1.7 million for 2005 absenteeism, US\$0.7 million for 2005 teacher-training and US\$3.4 million per year in the worst-case scenario. Projection data consistently indicate that the cost of absenteeism to employers is substantially greater than the cost of training and recruitment to replace staff lost through AIDS: absenteeism is variously estimated at 24% to 89% of the total HIV/AIDS costs to employers, and training and recruitment at 17% to 24%.

Source: Desai and Jukes (2005).

Figure 3.12: Percentage of trained primary-school teachers, 1998 and 2002



Notes: Data for Belize, the Congo, the Niger and Georgia are for 1999. Data for Rwanda are for 2001.  
Source: UNESCO Institute for Statistics database.

the majority of the forty-eight countries with data available. It rose by 30% or more in Mozambique, Namibia, Rwanda, South Africa and the Turks and Caicos Islands (Figure 3.12). Despite this general progress, several countries, including Anguilla, Belize, the Congo, Ghana, Nepal<sup>15</sup> and the Niger, experienced a drop in the proportion of trained teachers. In the Niger, the proportion of trained primary teachers fell from 97% to 72% between 1999 and 2002 as a direct result of a government policy to meet increased demand for primary education and keep costs sustainable by hiring large numbers of volunteer teachers without pre-service training, at substantially lower salaries than other teachers, and then providing them with in-service training to upgrade their qualifications. Similar efforts are under way in several other West African countries (Wallet, 2005).

In Mozambique, by contrast, a policy of simultaneously lowering the minimum required primary teacher-training standards from nine to

15. In Nepal, a tremendous drop in the percentage of trained teachers, from 52% to 16%, reflects a stricter definition of training. The most recent data include only teachers who have received at least ten months of training, while data in the past included teachers who might have received as little as 2.5 months of training.

**Rwanda increased its proportion of trained teachers from 49% to 81%**

seven years of schooling and introducing an accelerated teacher-training programme raised the proportion of trained teachers from 33% to 60% (European Association for International Education, 2003; International Association of Universities/UNESCO, 2005). While the policies of both the Niger and Mozambique largely aimed to reduce the costs of expanding primary education, their implications for quality and learning outcomes remain uncertain (Wallet, 2005). However, other countries succeeded in increasing the percentage of trained teachers without lowering standards. Rwanda increased its proportion of trained teachers from 49% to 81%

by reorganizing teacher-training institutions, opening new teacher-training colleges and subsidizing two church-based training institutions that together produce about 1,500 new primary teachers per year (MINEDUC, 2003). However, while the teachers' training status has improved, quantity is still insufficient, as the primary PTR grew from 54:1 to 60:1, with implications for the quality of teaching and learning.

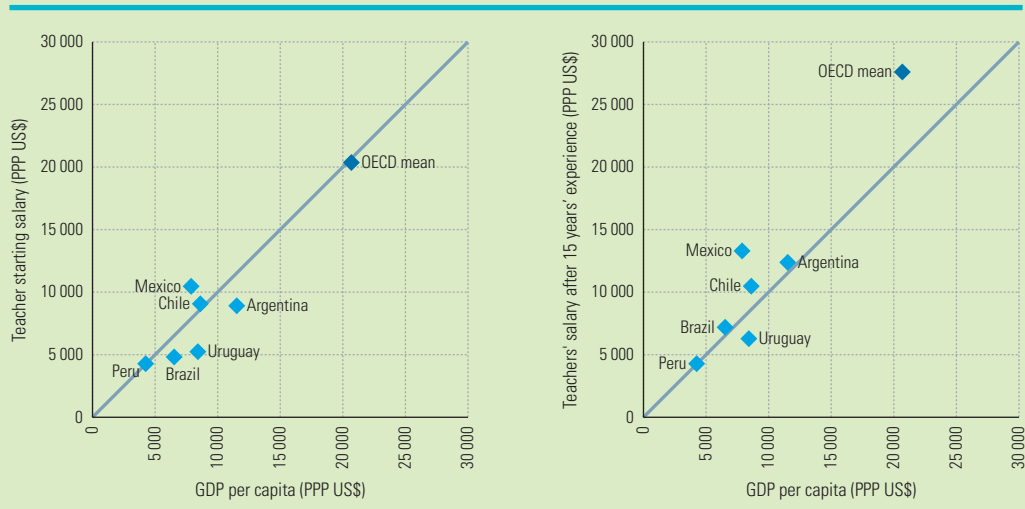
Just as important as teacher qualifications are the status of teachers and the need to involve them in policy development and implementation, as the 2005 Report noted. Yet, salaries remain problematic. In Estonia, for example, despite

**Box 3.7 Teacher salaries and working conditions in Latin America**

National policy discussions and strategies related to teachers focus on three themes: working conditions, training and performance appraisal. On average, teachers' salaries in OECD countries, including Mexico, start at about the level of GDP per capita and grow steadily to reach 140% of GDP per capita after fifteen years of teaching experience. Teachers in non-OECD Latin American countries, except Chile, start their career with salaries between 60% (Uruguay) and 90% (Peru) of GDP per capita. After fifteen years of service, salaries are 1.4 times the starting level in Argentina and 1.5 times higher in Brazil, while in Chile and Uruguay the ratio between starting and mid-career salaries is a more modest 1.2, and Peru has no increase in base salaries throughout the teaching career (Figure 3.13).

Career progression for teachers in Latin America is very limited, with few opportunities offered except to become, for example, principals and then inspectors. Chile is the only country in Latin America to systematically evaluate public schools and their teachers (both state-run schools and those that are privately run but state-subsidized). It provides monetary rewards to schools and teachers whose performance is evaluated as excellent. In the last two performance evaluations (2003 and 2004), 10% of teachers were assessed as outstanding, 52% as competent, 37% as at the basic level and 3% as unsatisfactory.

**Figure 3.13: Primary teacher salaries and comparison with GDP per capita: entry level and after fifteen years' experience (PPP US\$, 1999)**



Source: Umayahara (2005).

salary increases in recent years, a junior teacher's pay has not even reached the national average wage (Koke, 2005). Similarly, inadequate teacher salaries in Latin America fail to attract the best candidates (Box 3.7). While teachers may be 'perhaps the most important constituency in education reform', overall in many regions they continue largely to be 'ignored in policy dialogue, monitoring and implementation' (World Economic Forum, 2005). Some countries are trying to improve teachers' status, though. In China, salaries have been increased and a National Teachers Education Network has been launched to provide a 'lifelong learning platform' for strengthening professional skills (Bernard, 2005).

### Women teachers and the gender goal

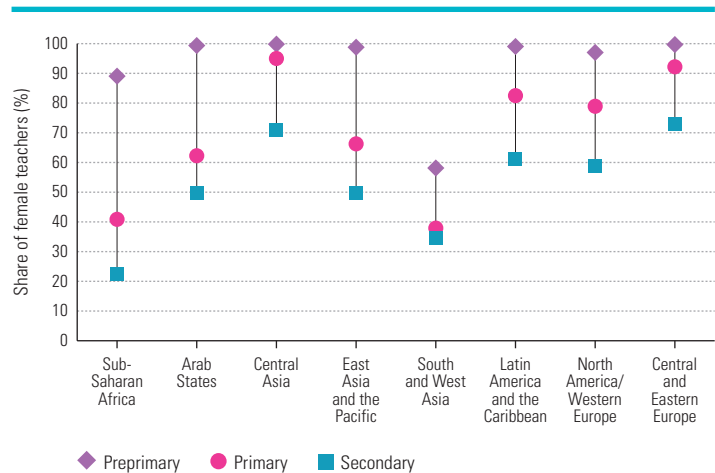
The proportion of teachers who are women is a potentially crucial indicator for gender outcomes in schooling. In general, women predominate among teachers, the proportion being highest in pre-primary education and somewhat lower at the primary and secondary levels. Important regional differences exist (Figure 3.14): the proportion of women teachers is lowest in South and West Asia and in sub-Saharan Africa, where men outnumber women teachers at both primary and secondary levels. In Benin and Chad, less than one-fifth of primary teachers are women. In countries including Benin, Burkina Faso, the Comoros, the Congo, Eritrea and Senegal, less than 15% of all secondary teachers are women.

Female teachers are fewest in countries where overall enrolment levels are lowest and gender disparities in favour of boys are highest. Equalizing gender balance among teachers will promote girls' enrolment in these countries (UNESCO, 2004a). Moving to a very high proportion of female teachers, however, can work to the disadvantage of boys, a phenomenon that also characterizes several Caribbean countries as well as Mongolia, Nicaragua and the United Kingdom.

### The need for inclusion

As Chapter 1 noted, Education for All is about all six goals, not just about schooling. It is also about all people – children, youth and adults; women and men; rural and urban residents; the poor and the better-off; ethnic and linguistic minorities and majorities; the disabled and the able; the sick as well as the healthy; the HIV-positive and the HIV-negative; and the chronically hungry and the

**Figure 3.14: Median share of female teachers in various levels of education by region, 2002**



Source: Statistical annex, Tables 10A and 10B.

malnourished as well as those with enough to eat. At school level, given the considerable (albeit insufficient) progress that has been made towards the primary enrolment and gender parity goals in many countries, the EFA challenge now concerns enhancing quality (focus of the 2005 Report) and extending enrolment to include everyone. Among youth and adults, the lack of literacy largely affects excluded groups, and particularly women members of such groups. Chapter 7 discusses literacy among indigenous peoples, migrants and people with disabilities, while this section examines three other types of exclusion that are particularly relevant at school level: the exclusion of unregistered children, rural children and girls.

### Unregistered children

According to UNICEF, some 48 million births were not registered in 2003 worldwide – over 30% of all estimated births. In South Asia and sub-Saharan Africa, 63% and 55%, respectively, of total births went unregistered. Reasons for not registering birth vary: it is often not perceived as a fundamental duty and right, it can require a fee that families find hard to afford (e.g. in Indonesia), it sometimes involves travelling far (e.g. in parts of Albania) and it is often especially difficult for ethnic minorities and particular indigenous groups (e.g. Kurds in the Syrian Arab Republic) (UNICEF, 2002 and 2005c). Finally, in many countries concerned by this problem, systems of registration are either not in place or not functional.

**The proportion of women teachers is lowest in South and West Asia and in sub-Saharan Africa**

**About 70% of the world's poorest people live in rural areas**

School enrolment often requires a birth certificate; this is the case, for instance, in Cameroon, Lesotho, the Sudan and Yemen. In other countries, a certificate may not be needed to enrol, but is necessary for obtaining a primary school diploma. Steps are needed, therefore, both to encourage birth registration and to ensure that unregistered children can attend school. Indeed, the right to birth registration is enshrined in the 1989 Convention on the Rights of the Child, and must be guaranteed to all children.

### Reaching rural people

About 70% of the world's poorest people live in rural areas. The supply of education for rural people is generally inadequate. Urban African schools, for instance, are much better equipped than rural ones, especially with regard to electricity and water supplies (Monitoring Learning Achievement Project, 2002). Many rural schools do not offer the full number of primary grades, and teach curricula that are ill adapted to rural circumstances.<sup>16</sup> The language of instruction may differ from children's mother tongues. Rural children also receive less parental supervision and help with homework than do urban ones, as surveys in India and Mexico have found. Demand for schooling in rural areas can be low, particularly because of the opportunity costs of attending school in terms of time lost to working in the fields or the home. Demand can also fluctuate with respect to seasonality of opportunity costs, to agricultural and economic conditions, and to health and nutrition problems. Solutions exist to all these supply and demand problems, including non-formal programmes such as BRAC in Bangladesh, community schools in Mali and the Escuela Nueva programme in Colombia. Non-formal programmes have had a significant impact but are unlikely to reach the scale required to meet the learning needs of large numbers of rural children. To this end, research into formal programmes is needed, which was the rationale for the inter-agency EFA flagship initiative on Education for Rural People, launched in 2002 and led by UNESCO and the Food and Agriculture Organization of the United Nations.<sup>17</sup>

Since the bulk of out-of-school children and those receiving insufficient schooling live in rural areas, it is right to focus attention on the needs of rural children and adults, as the flagship initiative does. Such a focus must, however, avoid three potential traps. The first

is to ignore urban children, who are by no means universally better off educationally than their rural counterparts, especially children in peri-urban communities. The second trap is to regard rural areas as homogeneous, which they are not. There is no internationally agreed definition of 'rural', and hence no internationally comparable rural-urban statistical breakdowns can be made. Different countries mean different things by 'rural' and 'urban'. Within the rural parts of countries, moreover, population densities can vary considerably, a fact with important cost implications for rural schools. In remote regions of many countries, access to villages is difficult. As a result, per student costs are high, either because class sizes have to be small or because of transport costs to consolidate children in regional schools. It is important to realize, therefore, not only that there is a need to focus on rural people, but also that the implementation of any policy to include the rural remote entails higher than average unit costs. Solutions exist, such as multigrade teaching and the provision of school meals, but some are resisted in regions without experience of them until very recently, such as Central Asia. The third point, consistent with the concept of Education for All, is to ensure that strategies to reach and educate rural people, taking their geographic circumstances into account, do not involve special curricula that, while adapted to rural children, risk providing them with an education that is more vocational, less flexible and possibly of lower quality than that provided to other children, or that could deny them the choices other children have.

### The continuing gender challenge

Previous Reports, especially that of 2003/4, have made the case for gender parity and equality, noting that one is essentially a quantitative and the other a qualitative goal. Though 2005 data are not yet available, we know from the results presented in Chapter 2 that the gender parity goal for 2005 has been missed, especially in South Asia and sub-Saharan Africa, but also elsewhere. Still, some countries, including some of the poorest, have dramatically reduced gender inequality in enrolment and completion in recent years. To stress that successful strategies exist, this section draws on country experiences with enrolling and keeping girls in school.<sup>18</sup> The elements of the strategies are well known, as is the need to integrate actions inside the school with those outside the school at the

16. It should be noted, however, that many parents object to children being taught a special rural curriculum, viewing it as substandard (Moulton, 2001).

17. For details, see [www.fao.org/sd/erp/index\\_en.htm](http://www.fao.org/sd/erp/index_en.htm)

18. The focus here on girls in primary education is not meant to imply that secondary education is less important or that there are no gender issues for boys. Indeed, increasing girls' enrolment in secondary school is an important strategy for increasing primary enrolment. In middle income countries, as Chapter 2 points out, issues of boys' enrolment and learning, compared to those of girls, are increasingly coming to the fore.

**Table 3.7: Strategy framework to assure gender equality in education by 2015**

Inside the classroom	Outside the classroom
<b>Component 1: Ensure a girl-friendly environment at all levels of society</b>	
	<ul style="list-style-type: none"> <li>● Reduce wage and job sex-discrimination in the labour market</li> <li>● Commit at the highest level to promote women's rights to education</li> </ul>
<b>Component 2: Make schools girl-friendly</b>	
<ul style="list-style-type: none"> <li>● Provide school with basic sanitation and separate toilets</li> <li>● Ensure that schools respect girls' safety and privacy</li> <li>● Facilitate the return to school of pregnant girls</li> <li>● Protect girls against violence at school</li> </ul>	<ul style="list-style-type: none"> <li>● Encourage community participation and parental support</li> <li>● Build schools closer to girls' homes and in areas belonging to the same community</li> </ul>
<b>Component 3: Make schooling gender-sensitive</b>	
<ul style="list-style-type: none"> <li>● Eliminate gender bias in teacher attitudes against girls via training</li> <li>● Employ more adequately educated and trained female teachers</li> <li>● Ensure that educational materials are gender sensitive and eliminate gender stereotypes</li> <li>● Provide curricula that are sensitive to present and future needs of girls</li> </ul>	
<b>Component 4: Make school more affordable</b>	
<ul style="list-style-type: none"> <li>● Remove direct costs as fees, but also indirect costs incurred by uniforms or books</li> <li>● Provide free or cheap transportation to schools</li> <li>● Provide breakfasts or meals at schools</li> </ul>	<ul style="list-style-type: none"> <li>● Reduce student domestic workload</li> <li>● Provide targeted scholarships to girls, particularly for secondary education</li> </ul>

local level and that of society as a whole. The framework used in this section and presented in Table 3.7 has two particular advantages: (a) it encompasses both demand and supply factors while recognizing that they interact in complex ways, making them difficult to distinguish in practice; and (b) its explicit consideration of actions outside the school highlights that school interventions alone, important though they are, will not assure gender parity and equality. The framework thus builds on the analysis in the 2003/4 Report.

#### ***A girl-friendly environment at all levels of society***

An environment unfavourable to women is a major impediment to the diffusion of girls' education (Millennium Project, 2005a). Broad social measures and reforms beyond the education system are needed to promote women's rights, empowerment and leadership. These are desirable in their own right as well as necessary for facilitating gender equity in education. Attitudes (and even laws and regulations) about women's roles in the labour market and in society – and about the gender-based division of work in the household and on the farm – influence decisions about schooling. Where women face limited employment and income-generation opportunities, families are often reluctant to invest in girls' education. Changing entrenched attitudes against women

and promoting women's empowerment at all levels of society, an essential condition for achieving gender equality in education, requires political commitment at the highest level.

However, as Figure 3.1 showed, the inclusion of gender parity in national EFA plans is not systematic, though it is increasingly present. Only eighteen out of thirty-two country plans covered the gender goal, though in some cases, such as countries of Latin America and the Caribbean, this may be because gender parity has largely been achieved at primary and secondary levels. Ten out of fifteen Pacific island countries do not address goal 5 in their plans: the Cook Islands, the Federated States of Micronesia, Kiribati, the Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Tonga and Tuvalu. In all the countries except Nauru, fewer girls than boys are enrolled in primary school; moreover, the share of girls in total enrolment in secondary school is not only lower than that of boys in all ten countries, it is also less than the share at primary level in Nauru, Niue, Palau and Papua New Guinea. In several Pacific countries, though there may be more boys than girls enrolled, a trend of underachievement by boys is emerging. This is increasingly an issue worldwide (see Chapter 2) and one largely neglected in EFA plans until recently (Lameta, 2005). Even countries that have achieved the gender parity goal are far from gender equality in education, so the exclusion of gender from many of these countries' EFA plans is worrying.

**Broad social measures and reforms beyond the education system are needed to promote women's rights**

**Parents' concerns about safety may discourage families from sending girls to school**

### ***Girl-friendly schools***

Like society as a whole, schools need to be girl-friendly. Discriminatory practices are often embedded in school culture. Research in the past decade has endeavoured to understand the link between the school context, the 'informal school environment' and gender differentiation in education.<sup>19</sup> One important example is safety (discussed more generally in the last section of this chapter). Parents' concerns about safety may discourage families from sending children, especially girls, to school, particularly if schooling requires distant travel. Locating schools closer to girls' homes has allowed increased girls' participation in several countries (Herz and Sperling, 2003). Similarly, it seems that the location of schools within a given community is as important as the physical distance, if not more so (Lehman, 2005). Local community involvement can take different forms, from recruiting teachers to designing curricula and discussing pedagogy, and can reduce parents' reluctance to send their daughters to school (Box 3.8). Of course, all children, not only girls, benefit from closer ties between schools and the community.

Girls need separate sanitary facilities in schools as well as measures that protect their privacy and safety, and meet community cultural

standards. Experience in thirty African countries shows that most young women do not attend school during their menses because of the lack of separate toilets (Herz and Sperling, 2003). In some cultural settings, measures beyond separate sanitary facilities are necessary, such as boundary walls for girls' schools or separate hours for girls and boys in shared school buildings. Once again the school-community link is crucial.

Another important factor is schools' attitude towards girls who marry or become pregnant. A review of several country studies in sub-Saharan Africa found that between 8% and 25% of drop-out among girls was due to pregnancy (Eloundou-Enyegue et al., 2000); other girls leave at marriage. Readmission policies can offer a solution, allowing pregnant girls to resume school after giving birth and married girls to continue their studies. Gender-based violence, discussed further below, can also limit girls' participation.

### ***Gender-sensitive learning***

Gender bias in textbooks and in teachers' views, and lack of role models within schools, influence how parents, as well as pupils themselves, make schooling decisions. Considerable effort is still needed in many countries to revise teaching

### **Box 3.8 The Northern Areas Community Schools Programme in Pakistan**

In a remote region of northern Pakistan, extreme poverty, social conservatism and inadequate facilities played a large role in keeping the majority of children, and a disproportionate number of girls, out of school. As of the early 1990s, about 82% of government-run schools were for boys only, and 86% of the teachers in government-run primary and middle schools were male. Very few schools had sanitation and running water.

In the mid-1990s, the Aga Khan Rural Support Programme (AKRSP) developed a proposal for 'community schools' in partnership with village organizations, involving a mutual agreement. The AKRSP would establish either co-educational or girls' primary schools in areas where (a) there was no school; (b) the existing school was too small to meet demand; (c) there was only a boys' school to which parents were unwilling to send their girls; or (d) geographic, political or sectarian constraints prevented parents from sending their children to

the local school. For their part, communities would provide a building for classes and hire a teacher meeting the criteria of the Directorate of Education for the Northern Areas. These criteria included preference for female teachers unless there were no females meeting minimum academic requirements. The directorate agreed to help pay, train and supervise the teachers.

Public response to the programme was overwhelmingly positive. Between January and October 1995, a first round of 250 community schools opened. By March 1996, enrolment in these schools had reached 12,088 students, equivalent to about 16% of primary enrolment in the regular government system. Among newly enrolled pupils, almost 61% were girls. Nearly half the teachers were female. The majority of parents seemed comfortable with co-education as long as the community chose the teacher. Another 250 community schools have since opened, with assistance from the directorate.

Source: World Bank (1999c).

19. See, in particular, Gordon (1995), Maimbolwa-Sinyangwe and Chilangwa (1995), Kutnick et al. (1997), Miske and Van Belle-Prouty (1997), Sey (1997) and Swainson et al. (1998).

materials that often display strong role models for boys but few or weak ones for girls, and to make curricula at all levels gender-sensitive and responsive. Girls may receive less attention from teachers, who sometimes have stereotypical, negative perceptions of girls' academic ability. Boys tend to lead groups and have more opportunities to ask and answer questions, limiting girls to more passive roles (Herz and Sperling, 2003). Teachers' attitudes and expectations can deeply influence girls' learning outcomes and course choices, and hence their post-school possibilities. Gender stereotypes often discourage girls from taking courses in technical and scientific fields, for example, as well as reducing job opportunities and reinforcing gender segregation in the labour market (USAID, 1999).

Teacher-training is part of the answer. The presence of women teachers can also draw more girls into school. A randomized evaluation of a programme to hire female teachers in informal schools showed that girls' attendance increased by about half when women teachers were recruited (Banerjee and Kremer, 2002). Increasing the proportion of female teachers in countries where they represent a minority, especially in rural areas, is very important. The overall teacher shortage worldwide (discussed above in the section on teachers), which is especially acute in South Asia and sub-Saharan Africa, presents an opportunity to deal with this situation without risking the careers of existing male teachers. Appropriate measures can include imposing quotas, removing age restrictions, favouring local recruitment and posting, and building rural teacher-training institutions with facilities for women.

### **Making school more affordable**

The direct and indirect costs of formal education, discussed earlier, constitute a significant obstacle to expanded primary school attendance among the poor, and particularly for girls. Family income and the costs of providing education influence family willingness to send girls to school more heavily than they affect the willingness to send boys. In addition, the costs of going to school may be higher for girls. In Ghana, India, Malaysia, Pakistan, Peru and the Philippines, for example, distance to school is a greater deterrent to schooling for girls than for boys (King and Alderman, 2001); parents may have to pay higher transportation costs if they do not want their

daughters to walk long distances or walk alone to school. Clothing or uniform costs may be higher where parents are reluctant to send girls to school without proper attire. In the United Republic of Tanzania, for example, households spend as much as 14% more to send a girl to school than to send a boy. (King and Alderman, 2001).

Countries that have removed fees or other direct costs of education have experienced dramatic increases in girls' enrolment. Uganda's UPE programme, begun in 1997, led to a jump in the net enrolment ratio for girls from 63% to 83% in just two years, and the rate for the poorest girls nearly doubled, from 43% to 82%. On average, the gender gap in primary education almost disappeared (Deininger, 2003). The 2003/4 Report also stressed the importance of fee elimination in girls' education, especially in sub-Saharan Africa. Another widely used approach is to provide stipends to parents to cover the costs of schooling. Scholarships for girls' programmes have been successfully used in several countries, including Bangladesh.<sup>20</sup>

The opportunity cost of children's time in school-related activities is also often higher for girls than for boys, especially in poor and rural areas, where there are strong gender norms for household tasks and where girls tend to work longer hours than boys in both market and non-market work. Investing in early childhood care and education, and in childcare centres at schools and in communities, for instance, can free many girls from poor families to attend school. Such investment not only relieves older girls of sibling care during the day, but also benefits younger siblings directly. Other investments, e.g. in fuel-efficient wood-burning stoves, accessible water wells and simple mechanized grain and grinding mills, have been shown in Nepal, Burkina Faso and the Gambia to reduce demands on girls' time and permit them to attend school (World Bank, 1993).

### **Priorities and challenges**

The various measures that have been discussed in this subsection can be effective only as part of an integrated strategy. Indeed, experience shows it is the convergence of several measures aimed at favouring girls' education that is successful. The national EFA plan of the Niger illustrates the use of this integrated approach (Box 3.9). It should not be forgotten that in some countries it is boys who are the disadvantaged group. Where

**Countries that have removed fees have experienced dramatic increases in girls' enrolment**

<sup>20</sup> See UNESCO (2003b) for this and other examples.

**Box 3.9 The Niger's strategy to eliminate gender bias in schooling**

The Niger's strategy to improve girls' participation in the first and second cycle of basic education has eight elements:

- three campaigns between 2003 and 2015 to make parents and school partners aware of the benefits of enrolling girls, with special emphasis on issues relating to registration, retention, graduation rates and the sharing of education costs;
- local action plans to promote the enrolment of girls in rural areas with low girls' enrolment rates, starting with a test phase involving 480 schools and gradually being extended to 1,280 villages;
- tutoring to reduce the drop-out rate in 1,350 schools with the lowest girls' retention indicators;
- gender-based training for 5,410 teachers and 60 academic supervisors;
- revision of texts on the protection of girl students;
- prizes and scholarships for the 400 girls who each year achieve the best grades in science subjects for the primary school completion certificate;
- building of accommodation and provision of support to families that host girls from disadvantaged backgrounds while they attend school;
- capacity-building for the department concerned with the promotion of girls' enrolment (Direction de la promotion de la scolarisation des filles).

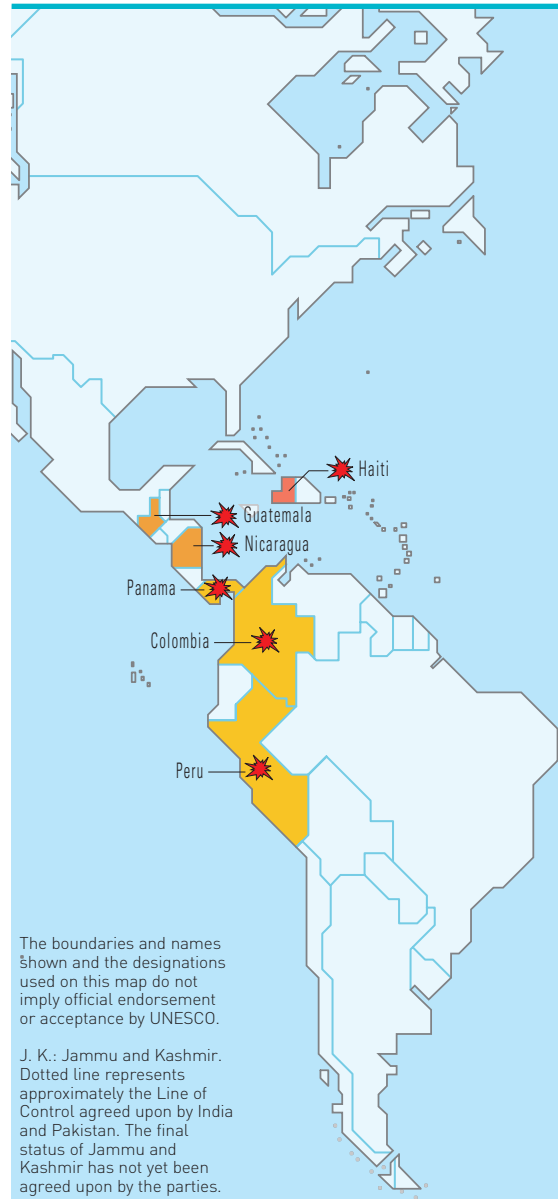
Source: Damiba (2005), citing the 2004 action plan of the Niger for its 2000–2015 national plan.

resources are greatly constrained, it is rational to make a special effort to reach the most disadvantaged groups – whether girls or boys – as gender disparities are often greater among the poor (World Bank, 2001; Filmer, 1999). Emergencies, conflict and post-conflict settings should also receive preference in implementing strategic priorities and allocating resources.

**Adapting to the context**

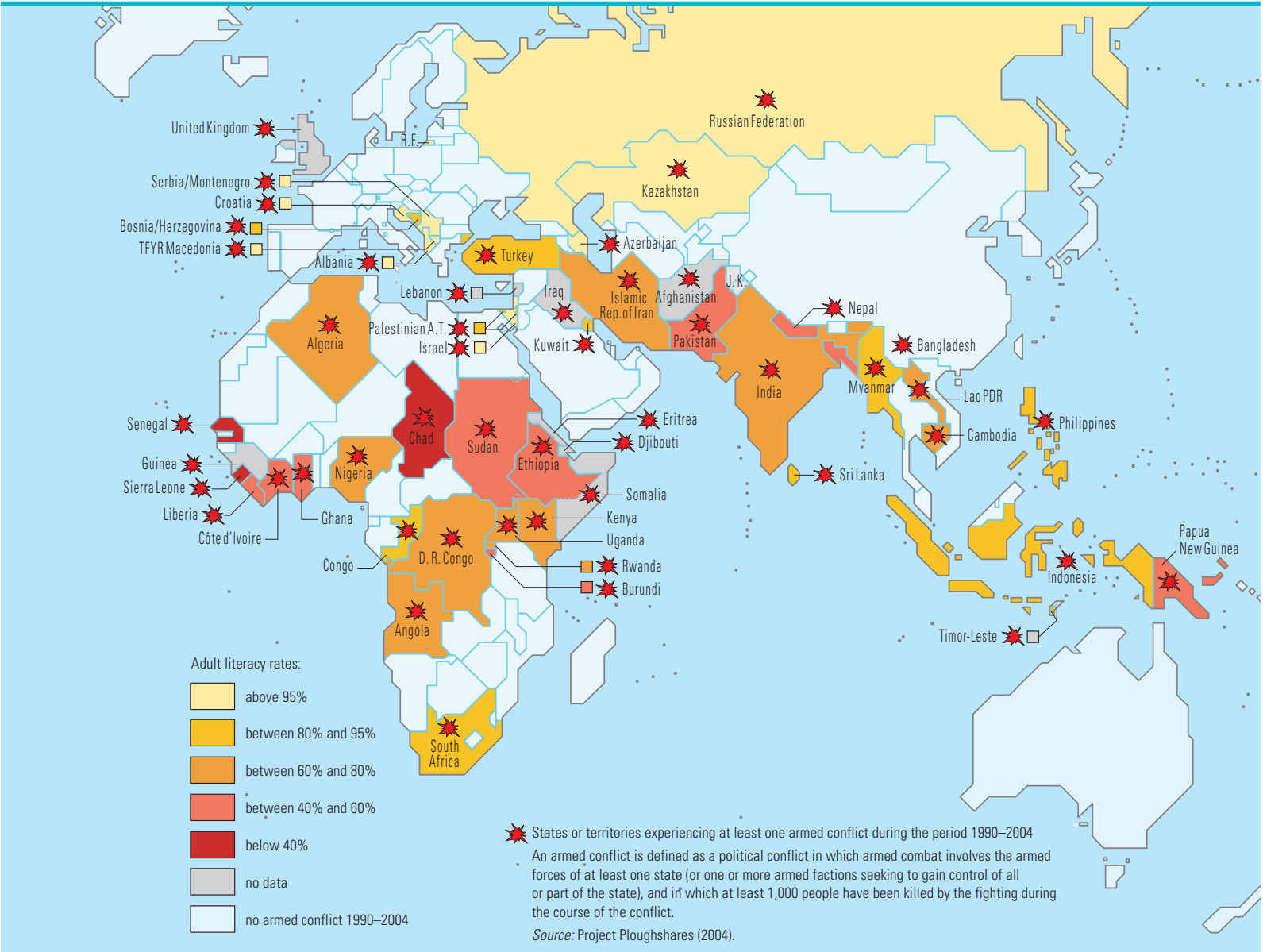
The discussion thus far in this chapter has related to normal circumstances, implicitly assuming reasonably stable governments and economies. A major obstacle to the achievement of EFA is the high proportion of countries that are in fact in, or recently emerged from, conflict, natural disasters, such as the December 2004 Indian Ocean tsunami, and economic instability. In addition, especially in sub-Saharan Africa, most countries have to confront the HIV/AIDS pandemic. This section initiates a discussion of such issues that future Reports will pursue further.

**Figure 3.15: Education and armed conflict**



**Emergencies and EFA**

Increasingly war and conflict occur within, rather than between, countries. In 2003, for instance, there were thirty-six armed conflicts, mostly civil wars, in twenty-eight countries, almost all low-income developing countries; 90% of the victims were civilians (Project Ploughshares, 2004). Figure 3.15 plots these conflicts on the world map. Conflict has important consequences for EFA for two reasons. First, the countries furthest from EFA are the low-income countries, and most conflicts today occur in poorer countries. Second, conflicts and their aftermath directly affect



Based on United Nations map

education systems. Schools and other buildings in the education system are common targets, as they are often perceived as a key to power. Schools are also seen as battlefields in the attempt to win hearts and minds. Parents are reluctant to send children, especially girls, to school when there is insufficient security. Children may even be recruited as soldiers. Chechen schools have been bombed during school hours (Nicolai and Triplehorn, 2003). By the end of the genocide in Rwanda only one-third of the country's 1,836 schools were still operational and only 45% of primary school

teachers remained (Obura, 2003). In Timor-Leste, 95% of the classrooms were destroyed in the violence that followed independence (Buckland, 2005). Teachers are the targets of murder, threats and displacement in Colombia, where eighty-three teachers were killed in 2003 (Women's Commission for Refugee Children and Women, 2004). Fear of abduction, rape, landmines and crossfire makes travel to school treacherous and parents reluctant to let children go to school during conflicts. Schools are frequent sites of military training and child recruitment, for example by rebel groups in the eastern

**Some 300,000 children under age 18, some as young as 7, are participating in armed conflicts**

Democratic Republic of the Congo. Some 300,000 children under age 18, some as young as 7, are actively participating in armed conflicts throughout the world (Coalition to Stop the Use of Child Soldiers, 2001).

Maintaining education systems during conflicts and other emergencies, like natural disasters, is essential, as education offers some stability, some normality and some hope for the future (Box 3.10).

Soon after being displaced during conflicts, communities often begin to organize rudimentary schools, in basements or under trees, often without funding, teachers or materials. In Guatemala, for instance, so-called Communities of Population in Resistance kept schooling going during the civil war. Learning that takes place in emergency situations can both prepare for the future and have immediate relevance, as in the cases of landmine awareness and HIV/AIDS education. Box 3.11 outlines principles that, while they hold even in peacetime, are particularly important in times of crisis.

It is, of course, easier to say that education should continue in times of emergency than to ensure that it does so, especially where the government apparatus, which should normally provide education, is either weak or has collapsed. As Sommers and Buckland (2004) note, 'The fundamental challenge to reaching EFA targets in countries during conflicts is the lack of an effective, widely accepted policy or strategy

to tackle the dual problems of weakened governments in war zones and the absence of clear mandates and coordinated action plans for international response'. The work of international agencies and NGOs thus becomes crucial. Increasingly, encouraging examples of successful international efforts can be found, including the distribution of education materials and development of teacher education by UNESCO's Programme for Education for Emergencies and Reconstruction in Somalia, Yemen, Djibouti and Ethiopia; UNICEF's community centre support in the southern Sudan, which includes education; and Save the Children Canada's projects in Colombia. The Inter-Agency Network for Education in Emergencies (INEE), a global network of over 100 organizations and 800 individuals, has developed the Minimum Standards for Education in Emergencies, aimed at improving coordination among all those involved in education in emergencies.

The necessary reconstruction of education after conflicts and other emergencies represents considerable potential for renewal and improvement. Policy change, for instance, can be relatively easy, as old structures may have been swept away. At the same time, educational reconstruction cannot be undertaken with a development 'business as usual' approach (Buckland, 2005) because of the legacy of conflict: weakened institutions, civil society in disarray, destroyed infrastructure, unschooled overage

**Box 3.10 The impact of the 2004 tsunami on education systems**

According to official estimates, the December 2004 earthquake and tsunami killed more than 280,000 people. In India, Indonesia, Malaysia, Maldives, Myanmar, Somalia, Sri Lanka and Thailand, homes, schools, bridges and roads were devastated. UNICEF estimated that 1.5 million children were affected by the disaster and that more than one-third of those killed were children. A month following the disaster, the World Bank estimated damage and loss to the education sector in Indonesia at US\$128.4 million. Nearly 1,000 Indonesian schools were destroyed or damaged. The tsunami caused US\$21 million in damage to the Sri Lankan education system; 168 public schools were damaged. Teacher unions estimate that up to 75,000 teachers were affected by the tsunami. In Aceh, Indonesia, about 2,500 teachers were killed and 3,000 teachers there were still homeless three months later. In Aceh and the

island of Nias, as many as 45,000 students were killed. Despite such hardships, about 750,000 children in tsunami-affected areas returned to school within two months after the disaster, UNICEF reported. In Aceh and Nias, 1,200 temporary primary school teachers were trained and began teaching in July, the beginning of the new school year. School rehabilitation in many cases began with temporary structures, built immediately after the disaster, to maintain continuity of education. The move to more permanent structures has begun, but before rebuilding could begin in earnest, issues such as land rights and safety regulations need to be addressed, and steps taken to ensure that the reconstruction is carried out equitably and sustainably.

Sources: UNICEF (2005d); World Bank (2005c).

### Box 3.11 Principles of emergency education

#### Access

- The right of access to education, recreation and related activities must be assured.
- Rapid access to education, recreation and related activities should be followed by steady improvement in quality and coverage, including access to all levels of education and recognition of studies.
- Education programmes should be gender-sensitive, accessible to and inclusive of all groups.
- Education should serve as a tool for child protection and prevention of harm.

#### Resources

- Education programmes should use a community-based participatory approach, with emphasis on capacity-building.
- Education programmes should include a major component of training for teachers and youth/adult educators, and provide incentives to avoid teacher turnover.
- Crisis and recovery programmes should develop and document locally appropriate resource standards, adequate to meet the programmes' educational and psychosocial objectives.

#### Activities and curriculum

- All crisis-affected children and young people should have access to education, recreation and related activities, to help meet their psychosocial needs in the short term and longer term.
- Curriculum policy should support the long-term development of individual students and of the society and, for refugee populations, should be supportive of a durable solution, normally repatriation.
- Education programmes should be enriched to include life skills for health, safety and environmental awareness.
- Education programmes should be enriched to include life skills for peace, conflict resolution, tolerance, human rights and citizenship.
- Vocational training programmes should be linked to opportunities for workplace practice of the skills being learned.

#### Coordination and capacity building

- Governments and assistance agencies should promote coordination among all agencies and stakeholders.
- External assistance programmes should include capacity-building to promote transparent, accountable and inclusive system management by local actors.

Source: Sinclair (2003).

children, demobilized child soldiers, and so on. Above all, there is an immediate need to avoid a relapse into violence.

Experience shows that the most effective reconstruction strategies are participatory, elaborated in full dialogue with the affected community (INEE, 2004). Beyond education systems' reconstruction as such is the role they can play in forging social cohesion and facilitating economic recovery. Rebuilding societies free of discrimination and ethnic bias is a challenge being addressed in several places, including Mozambique, Northern Ireland, Rwanda, South Africa and the countries of the former Yugoslavia, all of which are trying to move away from segregated systems towards inclusive education.

#### Economic instability and EFA

Economic crises affect education systems. Public finances deteriorate and resources for the public funding of education typically decline. Household incomes fall and resources to meet the private

costs of education are less available to families, although not all the effects of economic crisis are to education's detriment: in particular, the lowering of wages in the labour market can reduce the opportunity cost of children attending school rather than working. Hence, an economic and financial crisis often encourages school drop-out, but not invariably. In Costa Rica, economic crises significantly reduced secondary school attendance, especially in rural areas (Funkhouser, 1999). In Pakistan, severe reductions in income increased drop-out from secondary schools and, to a lesser extent, primary schools. In Brazil, by contrast, similarly severe income reduction did not in general reduce school attendance, as they also lowered the wages of children and hence the household cost of attending school (Duryea and Arends-Kuenning, 2001). Mexico experienced both effects, but the income reduction was greater than the drop in opportunity costs, so school attendance fell (Binder, 1999). Patterns similar to these also were

**In Costa Rica,  
economic crises  
significantly  
reduced secondary  
school attendance**

found in East Asia during the severe economic and social crisis of the late 1990s.

While economic crises have a mixed impact on school attendance, they more systematically affect quality negatively. Parents may wish to keep their children in school, but may cope by sending their children to a cheaper school and, very commonly, by simply reducing spending on school materials, as occurred in Argentina in 2002 (Box 3.12). It is thus very important for public resources devoted expressly to quality inputs to education to be maintained as much as possible despite economic downturns.

### HIV/AIDS and EFA

HIV/AIDS, which caused about 3.1 million deaths in 2004 (UNAIDS/WHO, 2004), has a profound impact on education, and hence on the achievement of the EFA goals, especially in sub-Saharan Africa. Education also has the potential to help mitigate the pandemic. The impact on education results particularly from increases in the numbers of orphans, which education systems must accommodate, especially in sub-Saharan Africa, and from the effects of the pandemic on school system employees, including teachers (discussed above) and administrators. Education can help mitigate the pandemic through providing information to students about HIV/AIDS and developing their ability to respond.

### Impact on education systems

The HIV/AIDS crisis has left many children orphaned (having lost either or both parents). Particularly affected are eastern and southern Africa, where 31% to 77% of all orphans are AIDS orphans, compared to 4% to 39% in the rest of Africa (Desai and Jukes, 2005). AIDS orphans who have lost a mother outnumber those who have lost a father, creating a particular gap in childcare and household continuity. AIDS orphans may be unable to attend school because they or the extended family and community members caring for them cannot afford the household costs; even when they attend, they may need a wider range of support services than children with both parents and may also lack parental support with their learning.

While the needs of orphans and the impact of HIV/AIDS on teachers have been fairly widely reported, a particular gap has concerned the impact of HIV/AIDS upon education administrations and their responses to the pandemic. As with teachers, the impact on administrations stems more from the absenteeism of the sick than from the direct replacement and training costs that follow the death of personnel. 'Absenteeism is variously estimated at 24% to 89% of the total HIV/AIDS costs to employers, and training and recruitment at 17% to 24%' (Desai and Jukes, 2005, citing Grant et al., 2004, and Grassly et al., 2003). There appear to be no estimates of the impact of HIV/AIDS on education administrations specifically, however.

How well prepared are education systems to deal with AIDS? A recent survey reported that only 43% of countries with an education management information system had amended it to include HIV/AIDS-sensitive indicators through measures such as modifying annual school censuses to monitor illness and death among teachers, orphaning, and reasons for teacher attrition and pupil drop-out (HEARD and MTT, 2005). Of the seventy-one countries surveyed, 12% had no education management information system at all, much less one adapted to HIV/AIDS information.

### Impact of education on HIV/AIDS

It is generally believed that the higher the level of educational attainment, the lower the rate of HIV infection within a population. In practice, the situation is more complicated. The relationship between education and HIV/AIDS appears to vary

**HIV/AIDS, which caused about 3.1 million deaths in 2004, has a profound impact on education**

#### Box 3.12 Economic shocks and the quality of education: the Argentine case

Argentina experienced a major economic and social crisis in 2002. Household income fell by roughly one-third in real terms, and about half of all households also experienced a drop in nominal income. The proportion of the population categorized as poor grew by roughly 15% and the number of the extreme poor nearly doubled between October 2001 and May 2002. Families tried very hard to keep children in school (De Ferranti et al., 2000). However, they made adjustments that had implications for quality, opting for less expensive private schools (3%), moving from private to public schools (2%) and reducing purchases of school materials (72%), an option taken particularly by the poor: while 90% of households in the lowest income quintile reduced spending on school materials, only 43% of those in the highest quintile did so.

Source: Fiszbein et al. (2002).

according to the stage of the pandemic. At the early stages, more educated people are more vulnerable to infection. Once information becomes available, however, the most educated members of society are more likely to access and internalize it. A survey of African countries confirms this behaviour, notably in Uganda (Desai and Jukes, 2005). As a result of these trends, African countries with higher levels of educational attainment initially have higher rates of HIV/AIDS infection than those with lower levels, but the pattern is beginning to shift. Infection rates were initially higher among the educated because of other socio-economic characteristics of these populations, such as higher income, geographic mobility, more sexual partners and more access to commercial sex partners. As information spread on such crucial topics as HIV transmission routes and ways to block them, however, educated people responded.

Recent developments confirm this pattern. A study in thirty-two countries, for example, found that literate women were three times more likely than illiterate ones to know that a healthy looking person can have HIV, and four times more likely to know the main ways to avoid AIDS (Vandermoortele and Delamonica, 2000). In Thailand – where, in contrast to most of Africa, information spread before the disease appeared – several large studies of HIV prevalence among army recruits confirmed that those with more education had lower HIV infection rates (Desai and Jukes, 2005). In Zambia, HIV infection rates have fallen by almost half among educated women but show little decline for women with no formal schooling (Schenker, 2005). In Uganda, by the end of the 1990s both women and men who had finished secondary school were seven times less likely to contract HIV than those with little or no schooling (Millennium Project, 2005b). In Zimbabwe, 15- to 18-year-old girls who were enrolled in school showed an HIV prevalence rate of 1.3%, just over one-sixth of the rate (7.2%) among girls of a similar age who had dropped out (Gregson et al., 2001).

Thus, educational attainment reduce the risk of HIV infection. But schools can do more to stem the spread of the disease. Particularly important are the provision of reliable HIV/AIDS information and the measures discussed above to encourage girls to enrol and stay in school. Formal schooling offers students the opportunity to gain scientific and practical information about HIV/AIDS, and offers society the possibility of people's changing

their sexual behaviour as a result (Schenker, 2005). Keeping girls in school is an important strategy because it helps delay initial sexual activity. For example, in eight sub-Saharan countries, women with eight or more years of schooling were 47% to 87% less likely to have sex before the age of 18 than women with no schooling (Schenker, 2005). An analysis based on data from Uganda suggests that universal primary education could save 700,000 young adults from HIV infection. Another analysis from the United Republic of Tanzania suggests that investments in expanded school enrolment for girls is cost effective purely in terms of the effect this increased enrolment will have on the HIV epidemic (Desai and Jukes, 2005).

Not only can schools provide information and a safe, sensitive learning environment, but, at least in countries with higher per capita incomes, they can also offer health services such as voluntary counselling and training. The Ministry of Education in Israel formally encourages all students between ages 15 and 18 to volunteer to undergo HIV testing and counselling. The ministry launched an HIV/AIDS literacy campaign to this effect in March 2005 (Schenker, 2005). Schools can provide on-site health counselling and testing.

## Safe and healthy schools

If voluntary counselling and training is one method by which schools can help assure the health of their students, others of great importance in developing countries include keeping schools safe so that students can enrol and learn, and keeping students healthy so that they are ready and able to learn. This subsection draws attention to the need to eliminate violence, including corporal punishment, from schools, and to the importance of simple, cost-effective health and nutrition measures that improve learning and, hence, educational attainment and quality.

### Keeping schools safe

Where violence is ever-present in schools, it is a formidable obstacle to achieving EFA, given its negative impact on participation and achievement. It is also, of course, a serious violation of human rights. Children are all too often subject to violence and harassment (Human Rights Watch, 1999): corporal punishment, verbal abuse, sexual harassment, even rape by teachers. Contrary to popular belief, boys are the targets of school

**Data from Uganda suggest that universal primary education could save 700,000 young adults from HIV infection**

**A wide range of strategies is required to combat all forms of violence in schools**

violence more often than girls, the exception being sexual violence.

Numerous studies document the fact that corporal punishment is the most widely reported form of violence in schools worldwide. It occurs even in countries that ban it, such as Zimbabwe (Leach and Machakanja, 2000). Cases are on record of teachers forcing students to discipline their peers via corporal punishment (Anderson-Levitt et al., 1998). In South Asia, excessive corporal punishment such as twisting of ears and slapping has been reported. Higher-caste teachers in India have physically and verbally abused lower-caste students, and children in Bangladesh and in Pakistan have reportedly been put in chains and fetters (UNICEF, 2001). Verbal abuse also abounds, especially among female teachers, who may be less inclined to use corporal punishment. Students often perceive verbal abuse as more hurtful than corporal punishment, as it can result in loss of self-esteem.

Gender violence can be both explicit and implicit. Explicit violence may be perpetrated both by male teachers and by male students with teacher endorsement. While much of the documented evidence comes from sub-Saharan Africa, explicit violence has also been reported in other countries such as Australia, Brazil, the United Kingdom and the United States, among others (Hornell, 1999; Dunne et al., 2005; AAUW, 2001). Implicit violence is more complex and stems from a general school culture that perpetuates gender differences and inequalities to such an extent that the school promotes inappropriate boundaries for gender relations as the norm (Leach, 2003).

A wide range of strategies, including national policies, school discipline rules and codes of conduct for teachers, is required to combat all forms of violence in schools. Australia, South

Africa, the United Kingdom and the United States have addressed the issue at national level in recent years (Mirsky, 2003). Many countries have established school discipline codes and codes of conduct for teachers, yet they are often not enforced. Head teachers often hesitate to report cases, as they know it will both generate paperwork and attract unwelcome media attention. Similarly, parents are often reluctant to bring charges due to the onerous nature of court procedures. A research project in Ghana, Malawi and Zimbabwe suggests that an effective approach involves bringing together teachers, parents, students, government officials and representations of civil society (Leach et al., 2003). The Stepping Stones training programme, promoted by UNAIDS, offers a successful approach to sexual violence. Used since 1995 in Africa, Asia and Latin America, it promotes gender equity, inter-generational respect, and solidarity with HIV positive people, in a human rights framework.

### **Keeping schools healthy**

Good health and nutrition are prerequisites for effective learning. There is strong evidence of their direct impact on cognition, learning and educational achievement (Jukes et al., forthcoming). The promotion of health and nutrition supports not only effective learning but also social inclusion, as it is the poorest who suffer the most malnutrition and ill health.

Infectious diseases affecting school age children include helminth infections, which directly impede learning (25% to 35% of all children in developing countries are infected with worms); malaria, which creates a massive absenteeism problem; and acute respiratory infections and HIV/AIDS. Malnutrition and hunger are common in developing countries, and micronutrient deficiencies pose a serious

problem. Iron deficiency, caused by malaria and hookworms, occurs among 50% of all children in developing countries. Iodine and vitamin A deficiencies are also very prevalent. Typically low test scores indicate that the total losses from stunting, anaemia and helminthiasis alone in children in developing countries amount to some 600 to 1,800 million IQ points, 15 to 45 million additional cases of mental retardation and 200 to 524 million years of primary schooling (Bundy et al., forthcoming).

Yet, cost-effective, low-cost interventions by teachers (Table 3.8) can make a major dent in these extraordinarily high educational and human losses, improving IQ by 4 to 6 points, school attendance by 10%, and overall school achievement. If schools carry out these actions, the costs are much less than if the health system does so, though this comparison excludes the extra cost of training teachers. Each typical school health intervention in the table will result in at least a 0.25 standard deviation increase in IQ and about an additional 2.5 student-years of primary schooling (Bundy et al., forthcoming). Combining the low cost and the high impact of these interventions makes them very cost-effective compared to traditional educational inputs such as books (Miguel and Kremer, 2004).

The Focus Resources on Effective School Health, or FRESH, is an EFA flagship framework encompassing these and other interventions. Undertaking mass delivery of services such as deworming and micronutrient supplementation avoids the high cost of diagnostic screening that would have to accompany targeted service delivery. Large-scale school health and nutrition programmes thus can have a major impact on learning. Developing countries increasingly recognize this, but implementation is far from complete. ■

**Table 3.8: Annual per capita costs of school-based health and nutrition interventions delivered by teachers**

Condition	Intervention	Cost US\$
Intestinal worms	Albendazole or mebendazole	0.03-0.20
Schistosomiasis	Praziquantel	0.20-0.71
Vitamin A deficiency	Vitamin A supplementation	0.04
Iodine deficiency	Iodine supplementation	0.30-0.40
Iron deficiency and anaemia	Iron folate supplementation	0.1
Refractive errors of vision	Spectacles	2.50-3.50
Clinically diagnosed conditions	Physical examination	11.5
Undernutrition, hunger	School feeding	21.30-151.20

Source: Bundy et al. (forthcoming).

**Large-scale school health and nutrition programmes can have a major impact on learning**