

Chapter 1

Education for all: human right and catalyst for development

The international community has adopted ambitious targets for human development. Objectives set under the Millennium Development Goals (MDGs) include the halving of extreme poverty, a two-thirds reduction in child mortality, universal primary education and greater gender equality. The deadline for delivering results is 2015. On current trends, most of the targets will be missed. Accelerated progress towards Education for All, with a strengthened focus on equity, could change this picture. But governments must act with a renewed sense of urgency and political commitment. This chapter looks at the issues at stake.

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Introduction

Almost two decades have passed since governments gathered at the World Conference on Education for All (EFA) in Jomtien, Thailand, to reaffirm the human right to education. They set bold targets – but outcomes fell far short of ambition. In 2000, the 164 governments assembled at the World Education Forum in Dakar, Senegal, adopted another set of ambitious goals on education. The Dakar Framework for Action pledges to expand learning opportunities for every child, youth and adult, and to meet targets in six areas by 2015. With the deadline now just six years away, will it be different this time around?

Accelerating progress towards education for all is one of the defining development challenges of the early twenty-first century. The right to education is a basic human right. Like any human right, it should be protected and extended as an end in itself. But education is also a means to wider ends. Prospects for reducing poverty, narrowing extreme inequalities and improving public health are heavily influenced by what happens in education. Progress towards the equalization of opportunity in education is one of the most important conditions for overcoming social injustice and reducing social disparities in any country. It is also a condition for strengthening economic growth and efficiency: no country can afford the inefficiencies that arise when people are denied opportunities for education because they are poor, female or members of a particular social group. And what is true at a national level also applies internationally. Prospects for achieving more equitable patterns of globalization are heavily influenced by developments in education. In an increasingly interconnected and knowledge-based world economy, the distribution of opportunities for education will inevitably have an important bearing on future patterns of international wealth distribution.

Some benefits of education are less tangible and harder to quantify than others. Schools are not just institutions for imparting information. They are a place where children can acquire social skills and self-confidence, where they learn about their countries, their cultures and the world they live in, and where they gain the tools they need to broaden their horizons and ask questions. People denied an opportunity for achieving literacy and wider

education skills are less equipped to participate in societies and influence decisions that affect their lives. That is why broad-based education is one of the foundations for democracy and government accountability, and why it is such a vital input for informed public debate in areas – such as environmental sustainability and climate change – that will have a bearing on the well-being of future generations.

The Dakar Framework is not the only pledge on the international development agenda. At the United Nations Millennium Summit, also in 2000, world leaders adopted eight Millennium Development Goals (MDGs). These wide-ranging goals extend from the reduction of extreme poverty and child mortality to improved access to water and sanitation, progress in cutting infectious diseases and strengthened gender equality. The goals are linked to the achievement of specific targets by 2015. In the area of education, the MDGs offer a highly restricted version of the goals adopted at Dakar. They include a commitment to achieve universal primary school completion and gender parity at all levels of schooling by 2015.

At one level the MDG framework is too narrow. EFA means more than five or six years in primary school and more than gender parity, vital as both goals are. The quality of education and learning achievement, access to secondary and post-secondary opportunities, literacy and gender equality, in a broader sense, are all important as well. Yet the Dakar Framework targets and the MDGs are complementary. Progress in education depends on advances in other areas, including the reduction of extreme poverty, the achievement of gender equity and improvements in child health. The links in this direction are obvious but often forgotten. Children whose lives are blighted by hunger, poverty and disease are clearly not equipped to realize their potential in education. Without advances across the broad front of MDG targets, the ambition of education for all cannot be realized. By the same token, progress towards many of the MDG targets depends critically on progress in education. Halving poverty or cutting child mortality by two-thirds by 2015 is not a serious proposition in a situation of slow and unequal progress towards the policy objectives set out at Dakar. The goals adopted by the international community are mutually interdependent – failure in any one area increases the likelihood of failure in all areas.

The interdependence between the MDGs and the Dakar Framework has taken on a new importance. In 2008 the world entered the second half of the commitment period for both undertakings. Now just seven years remain before the 2015 deadline – and the world is off track on many of the targets. On current trends, the goal of universal primary education (UPE) by 2015 will not be achieved and the pledges made at Dakar will be broken. Using a partial projection covering countries that account for just two-thirds of the 75 million primary school age children out of school today, this Report estimates that the countries will still have 29 million out of school in 2015. That number has consequences for the children and countries most immediately affected. But it also has consequences for the entire MDG project. Bluntly stated, the targets set for cutting child and maternal death, reversing the spread of infectious disease and reducing poverty will not be achieved unless governments act decisively on education. Conversely, accelerated progress on the wider MDGs would strengthen prospects in education by lessening the poverty, nutrition and health handicaps that millions of children take with them into school.

In September 2008, governments from around the world gathered at a United Nations summit in New York to reaffirm their commitment to the MDGs. The summit was prompted by a recognition that, without fundamental change, the development goals will not be achieved. Averting that outcome and restoring the momentum behind international partnerships for development will require more than encouraging communiqués. What is needed is a sense of urgency, political leadership and practical strategies.

Strengthening the commitment to the education goals set out in the Dakar Framework for Action is one of the most pressing priorities. Much has been achieved since 2000. Indeed, education has a strong claim to being counted as an MDG success story. Progress towards UPE and gender parity has been far more rapid than advances in other areas, such as nutrition or child and maternal mortality. One of the problems for EFA identified in Chapter 2 is precisely the failure of many countries to move more rapidly towards the MDG targets in these areas. But the relative success of education should not deflect attention from the size of the potential 2015 shortfalls in UPE. Making up these shortfalls would act as a powerful catalyst for accelerated progress towards the MDGs.

Children whose lives are blighted by hunger, poverty and disease are clearly not equipped to realize their potential in education

Few governments treat the crisis in education as an urgent priority, in stark contrast to their response to financial market problems

The backdrop for the September 2008 MDG summit was an unprecedented crisis in international financial markets. The fallout from that crisis remains uncertain. Governments are taking far-reaching measures to stabilize banking systems. The scale and urgency of their actions were guided by a recognition that, when financial markets fail, the contagion effects can spread rapidly across all aspects of society and the real economy. Analogies with education system failure are inexact but instructive. When education systems fail to reach large sections of the population, when children are denied opportunities by virtue of their gender, the income of their parents, their ethnicity or where they happen to live, or when schools deliver chronically substandard learning outcomes, there are also contagion effects. Those effects are not reflected in highly visible bank collapses, fluctuating share prices or mortgage failures. But there are real human, social and economic consequences. Education system failures weaken the real economy, holding back productivity and growth. They undermine efforts to reduce child and maternal mortality, contributing to loss of life and increased health risks. And they contribute to social polarization and the weakening of democracy. Yet despite the high stakes and the costs of inaction, few governments treat the crisis in education as an urgent priority – in stark contrast to their response to financial market problems. This is an area in which national and international leadership is needed to place education firmly at the centre of the political agenda.

The *EFA Global Monitoring Report* was first published in 2002 to track progress towards the six EFA goals enshrined in the Dakar Framework for Action. Since its inception it has covered each of the goals. This year the Report looks beyond the goals to a range of issues in education governance, finance and management. It focuses on the critical importance of equity in educational opportunity because equity should be an overarching public policy goal – and because deep inequalities in education threaten to undermine progress towards both the EFA goals and the MDGs. □

Educational opportunity: highly polarized

The distribution of educational opportunity plays a key role in shaping human development prospects. Within countries, governments and people increasingly recognize that unequal opportunities for education are linked to inequalities in income, health and wider life chances. And what is true within countries is true also between countries. Large global disparities in education reinforce the extreme divides between rich and poor nations in income, health and other aspects of human development.

The full extent of the gulf in opportunities for education is not widely appreciated. Education is a universal human right. However, enjoyment of that right is heavily conditioned by the lottery of birth and inherited circumstance. Opportunities for education are heavily influenced by where one is born and by other factors over which children have no control, including parental income, gender and ethnicity.

From a global perspective, being born in a developing country is a strong indicator for reduced opportunity. School attainment, measured in terms of the average number of years or grade reached in education, is one (admittedly limited) measure of global inequality. While almost all member countries of the Organisation for Economic Co-operation and Development (OECD) have achieved universal school attainment to grade 9, most countries in developing regions are far from this position. Age-specific school attendance pyramids that plot the distribution of age and grades graphically illustrate the contrast in average life-chances for education associated with being born in the OECD countries or in sub-Saharan Africa (Figure 1.1). By age 7, almost all children in the OECD countries are in primary school, compared with 40% for sub-Saharan Africa. At age 16, over 80% of the population of the OECD countries is in secondary school while one-quarter of sub-Saharan Africa's population is still in primary school. Four years later, at age 20, around 30% of the OECD population is in post-secondary education. The figure for sub-Saharan Africa is 2%.

Stark as they are, these figures tell only part of the story. One way of thinking about unequal opportunity is to consider the chance that a child

Educational opportunity: highly polarized

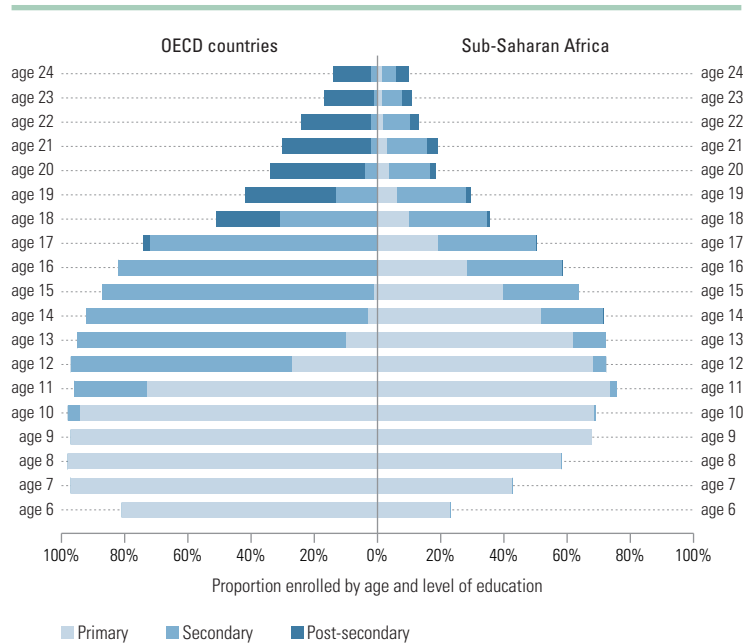
born in one country has of achieving a given level of education relative to a child born somewhere else. Chapter 2 draws on international data to compare educational opportunities across countries. The results are striking. They show that children in countries such as Mali and Mozambique have less chance of completing a full *primary* cycle than children in France or the United Kingdom have of reaching *tertiary* education. The gulf in attainment is not restricted to sub-Saharan Africa. Around one in five pupils entering primary school in Latin America and in South and West Asia does not survive to the last primary grade.

Global inequalities in education mirror inequalities in income. The association is not coincidental. While the relationship between education and wealth creation is complex, knowledge is an important driver for economic growth and productivity (see below). In an increasingly knowledge-based international economy, disparities in education are taking on more importance. There is a growing sense in which today's inequalities in education can be seen as a predictor for tomorrow's inequalities in the global distribution of wealth, and in opportunities for health and employment. The fact that in half the countries of sub-Saharan Africa the survival rate to the last grade of primary school is 67% or less is not irrelevant to prospects for overcoming the region's marginalization in the global economy.

Inequalities within countries create an even starker picture of disparities in opportunity. Data on national average life chances in education have the effect of masking the distribution of life chances across different groups in society. When within-country distribution is superimposed on cross-country disparity, the effect is to magnify the scale of inequality.

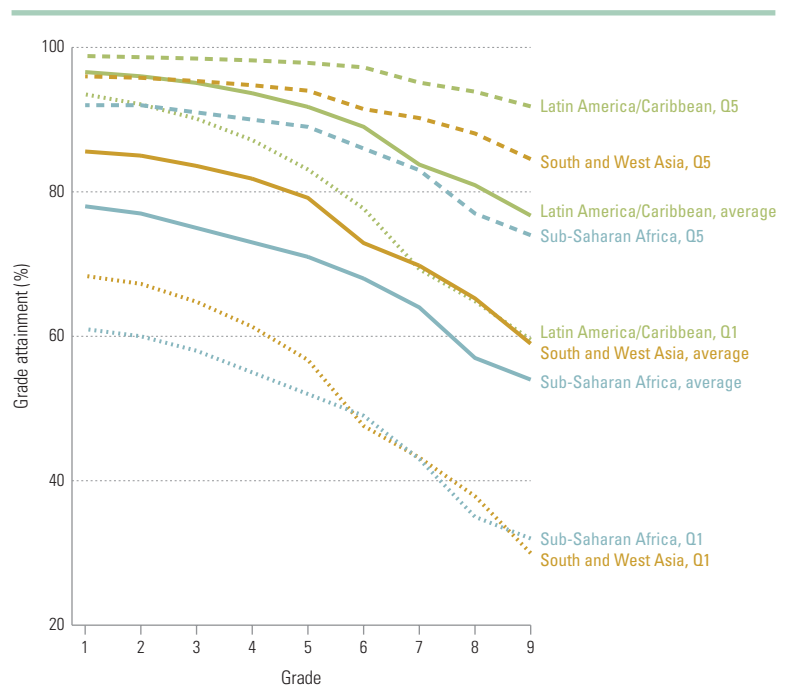
To illustrate this point the *EFA Global Monitoring Report 2009* has created a composite regional picture of the distribution of attainment across income groups using national household survey data. Figure 1.2 presents attainment curves at the polar ends of the distribution for the richest and poorest 20%. Once again the results are striking. They show that only around half of the poorest 20% in sub-Saharan Africa, and South and West Asia progress to grade 5, compared with over 80% for the wealthiest quintile. Being born into the poorest 20% of the wealth distribution in sub-Saharan Africa, or in South and West Asia, more than halves

Figure 1.1: Age-specific attendance rates by level in OECD countries and sub-Saharan Africa, 2000-2006¹



1. Weighted averages. Data are for the most recent year available during the period. Sources: Calculations based on OECD (2008b); World Bank (2008b).

Figure 1.2: Grade attainment among 10- to 19-year-olds in Latin America and the Caribbean, South and West Asia, and sub-Saharan Africa, 2000-2006¹



Note: Q1 is the poorest quintile, Q5 the richest. 1. Weighted averages. Data are for the most recent year available during the period. Source: World Bank (2008b).

the chance of school attendance at grade 9. While the wealthiest 20% in Latin America achieve attendance levels close to those in the OECD countries at grade 9, the poorest 20% are closer to the average for sub-Saharan Africa. These income-based disparities are mirrored in differences in average years of education attained by the people aged 17 to 22. In Mozambique, someone in the poorest 20% has on average 1.9 years of education, compared with 5 years for someone from the richest 20%. In Peru, the gap between rich and poor is 4.6 years of schooling, rising to 6.7 years in India (Table 1.1).

Income-based disparities such as those charted above are not the only type of disparity in education. Inherited disadvantages linked to gender, ethnicity, location and other factors are also important. These disadvantages intersect with income-based differences, restricting opportunity and transmitting educational disadvantage and poverty across generations. One of the central messages of this Report is that national governments and international development agencies need to strengthen the focus on equity in order to achieve the core goals in the Dakar Framework for Action.

Unequal distribution of education has wider consequences. Income-based gaps in educational opportunity reinforce income inequalities and the social divisions that come with them. They also mean the benefits associated with education in areas such as public health, employment and participation in society are unequally distributed. The human costs of these inequalities are cumulative and cross-generational. For example, the fact that women account for the majority of illiterate people in the world today is a reflection of historical gender disparities in access to education. But when women who have been denied an education become mothers, their children also inherit diminished life chances: they are less likely to survive, more likely to experience ill health and less likely to go to school than the children of mothers who have education.

Quality counts

Some inequalities are easier to measure than others. Headcount indicators covering the number of children in school or completing grades allow for relatively straightforward comparisons from country to country. Learning achievement indicators and comparisons pose more of a problem. Although

Table 1.1: Average years of education for poorest and richest 20% of 17- to 22-year-olds, selected countries, most recent year

	Poorest 20%	Richest 20%
	(years)	
Bangladesh, 2004	3.7	8.1
Burkina Faso, 2003	0.8	5.6
Ethiopia, 2005	1.6	7.4
Ghana, 2003	3.2	9.2
Guatemala, 1999	1.9	8.3
India, 2005	4.4	11.1
Mali, 2001	0.4	4.8
Mozambique, 2003	1.9	5.0
Nicaragua, 2001	2.5	9.2
Nigeria, 2003	3.9	9.9
Peru, 2000	6.5	11.1
Philippines, 2003	6.3	11.0
U.R. Tanzania, 2004	3.9	8.1
Zambia, 2001	4.0	9.0

Source: Demographic and Health Surveys, calculations by Harttgen et al. (2008).

global and regional learning assessments are expanding to cover more countries, information remains sparse and insufficiently available in forms that allow for straightforward global comparisons. Put differently, quantity is easier to measure than quality – yet in the last analysis, it is quality that counts. Ultimately, what matters is the degree to which schooling supports cognitive development, facilitates skills acquisition and enriches children’s lives.

Qualitative inequalities are probably narrowing far more slowly than quantitative gaps. Large though it remains, basic headcount inequality is falling at the primary and secondary levels. Convergence is the order of the day. Developing countries are catching up on enrolment, attendance and completion, albeit unevenly and often from a low base. One reason for this is obvious: rich countries cannot exceed universal coverage at the primary and secondary levels, so any gain by developing countries narrows the gap. However, school attainment has to be adjusted for the quality of education. When it comes to learning achievements and outcomes, an average school year in Zambia is clearly not the same as an average school year in, say, Japan or Finland. There is compelling international evidence (discussed further in Chapter 2) that completing six or even nine years of schooling in developing countries does not assure the development of

basic cognitive skills or even functional literacy and numeracy (Filmer et al., 2006; Pritchett, 2004a).

International assessment tests provide a pointer to the scale of global inequalities in learning achievement. To take one example, the OECD Programme for International Student Assessment (PISA) survey of reading and literacy skills places the median achievement in developing countries such as Brazil and Peru in the lowest 20% of the distribution for many OECD countries. One recent study of basic educational achievement found very high levels of functional illiteracy in mathematics and science among secondary school students in many developing countries. In Brazil, Ghana, Morocco, Peru and South Africa, fewer than 60% of children in school reached basic competency thresholds (Hanushek and Wößmann, 2007). Factoring in children out of school would be expected to lower the average performance. At primary level, recent surveys in Ghana and Zambia have found that fewer than 60% of young women who completed six years of primary school could read a simple sentence in their own language. Similarly, assessment exercises in countries including India and Pakistan found that over two-thirds of pupils at grade 3 level were unable to write a simple sentence in Urdu. Incorporating data on qualitative achievement magnifies the inequalities associated with quantitative attainment.

Education quality is important both in understanding the distribution of life chances in society and in charting the scale of global inequality in education. The bottom line is that EFA cannot be interpreted, as the MDGs sometimes are, as a simple matter of getting all children into school. It goes without saying that this is important. But it is what children get out of school that will shape their life chances. □

Unlocking the wider benefits of education

There are many good reasons for governments committed to the MDGs to renew their commitment to the Dakar Framework for Action. First and foremost, education is a human right and an important goal in its own right. It is central to the development of human capabilities – people’s potential to choose lives that they value (Sen, 1999). Beyond this intrinsic importance, there are strong two-way links between education and progress in areas where the world is off track on the MDG targets.

None of this is to imply that the links between education and social or economic benefits are automatic. The impact of education is strongly conditioned by other factors, from macroeconomic and labour market conditions to the state of public health provision and levels of inequality based on wealth, gender and other factors. The benefits of education are likely to be greatest in contexts marked by broad-based economic growth, a strong political commitment to poverty reduction, high levels of equity in access to basic services, and a commitment to democratic and accountable governance.

Economic growth, poverty reduction and equity

The links between education and economic growth, income distribution and poverty reduction are well established. Education equips people with the knowledge and skills they need to increase income and expand opportunities for employment. This is true for households and for national economies. Levels of productivity, economic growth and patterns of income distribution are intimately linked to the state of education and the distribution of educational opportunity. Increasing global economic interdependence and the growing importance of knowledge-based processes in economic growth have raised both the premium on education and the cost associated with education deficits.

All this has important implications for the international development goal of halving extreme poverty (MDG 1). The rate of poverty reduction is a function of two variables: the overall rate of economic growth and the share of any increment in growth that is captured by the poor (Bourguignon, 2000). Education has a bearing on both sides of the equation. Improved access to good quality learning

It is what children get out of school that will shape their life chances

Broad-based access to good quality basic education is one of the foundations for broad-based growth

opportunities can strengthen economic growth by raising productivity, supporting innovation and facilitating the adoption of new technology. And broad-based access to good quality basic education is one of the foundations for broad-based growth, since it enables poor households to increase their productivity and secure a greater stake in national prosperity. Recent research, discussed in the following subsections, confirms earlier findings on the key role of education in poverty reduction and highlights the critical importance of quality.

Economic growth

No country has ever reduced poverty over the medium term without sustained economic growth. Education plays a critical role in producing the learning and skills needed to generate the productivity gains that fuel growth. One recent research exercise draws attention to the importance for economic growth of both years in school and learning outcomes. Modelling the impact of attainment in fifty countries between 1960 and 2000, the study found that an additional year of schooling lifted average annual gross domestic product (GDP) growth by 0.37%. The impact of improved cognitive skills was considerably larger, with the combined effect adding, on average, a full percentage point to GDP growth (Hanushek et al., 2008; Hanushek and Wößmann, 2007). There is also some evidence that the impact of gains in education quality on cognitive skills may be larger in developing than in developed countries.

Education quality has a significant impact on economic returns for households as well. Research in fifteen countries participating in the International Adult Literacy Survey (IALS) found that a standard deviation in literacy (an indicator for quality) had a larger effect on wages than an additional year of schooling – confirmation that it is outcomes which count (Denny et al., 2003).

Individual earnings. A large body of evidence points to high returns on investment in education. The scale of these returns is a matter for debate. One cross-country exercise found each additional year of education increasing earnings by 10%, with variations that reflect underlying conditions: returns are higher for low-income countries, for lower levels of schooling and for women (Psacharopoulos and Patrinos, 2004). Other research has generated different results both overall and by level of education (Bennell, 1998). As these differences indicate, findings on returns to education are influenced both by methodological factors, and by economic conditions. Broadly, as

countries move towards UPE, returns at the primary level tend to fall as the national skills deficit shifts to the secondary and tertiary levels – a phenomenon widely observed in Latin America (Behrman et al., 2003). In terms of public policy, there are limits to relevance of rate of return analysis. The case for investment in basic education is rooted in human rights and ideas about citizenship, not in monetary calculation. That said, there is compelling evidence that private and public rates of return to education at the primary and secondary levels are sufficiently high to mark this out as a good investment for society. In the agricultural sector, increases in education are strongly associated with higher wages, agricultural income and productivity – all critical indicators for poverty reduction (Appleton and Balihuta, 1996). In contrast to these potential benefits, education inequalities based on gender and other factors inflict real economic costs. In Kenya it was found that increasing the education and input levels of female farmers to those of male farmers could increase yields by as much as 22% (Quisumbing, 1996).

Income distribution. The distribution of educational opportunity is strongly associated with income distribution, though the underlying relationship is highly variable and complex. This has important implications for poverty reduction and the MDGs. Economic growth matters because it raises average income. The rate at which growth is converted into poverty reduction depends on the share of any increment to national income going to people living in poverty. By raising the productivity of the poor, more equitable education can increase overall growth *and* the share of growth that accrues to those below the poverty line.

Less equitable education can have an equal and opposite effect. Evidence from the developed world points towards inequality in education as a cause of wider income inequalities. For example, over the past three decades, growing wage differentials between secondary school graduates and secondary school dropouts has been a major source of rising inequality and social polarization in the United States (Heckman, 2008). With a greater proportion of young Americans graduating from college and a greater proportion dropping out of secondary school, the skills gap is fuelling inequality.

Patterns of income inequality are conditioned by private returns from different levels of education, which in turn reflect developments in labour

markets. Rapid increase in demand for people with higher skills in countries with limited secondary school completion and restricted access to tertiary education can lead to pronounced increases in inequality. In India, Indonesia, the Philippines and Viet Nam rising wage inequalities are closely linked to widening wage gaps between people with tertiary education and those at lower attainment levels (Asian Development Bank, 2007). Similarly, evidence from Latin America suggests that returns to secondary and tertiary education are rising more rapidly than those to primary education (Behrman et al., 2003).

Prevailing patterns of income distribution reinforce the case for progress towards equalization of educational opportunity. At global level, the poorest 40% of the world's population, living on less than US\$2 a day, accounts for 5% of world income – and the poorest 20% (living on less than US\$1 a day) for 1.5% (Dikhanov, 2005). Even small shifts in the share of global income going to the world's poor could have very significant effects for poverty reduction. Measured in financial terms, it would take around US\$300 billion – less than 1% of world GDP – to lift the billion people surviving on less than US\$1 a day above the poverty line (UNDP, 2005). Given the prevailing level of global inequality, this would represent a modest degree of redistribution for a large impact on poverty. Greater equity in the distribution of educational opportunity could facilitate that redistribution. What appears clear is that more equitable patterns of global integration cannot be built on the vast educational disparities in evidence today.

The same broad conclusion holds true at the national level. Over the past two decades there has been a clear trend towards rising income inequality within countries. Of the seventy-three countries for which data are available, inequality has risen in fifty-three, which account for 80% of the world population. Many factors are involved, with inequality in education linked to technological change and wider forces. But the importance of inequality in education as a driver of wider inequality is increasingly recognized. When education is broadly shared and reaches the poor, women and marginalized groups, it holds out the prospect that economic growth will be broadly shared. Greater equity in education can help fuel a virtuous cycle of increased growth and accelerated poverty reduction, with benefits for the poor and for society as a whole.

The relationship between education on the one side and economic growth and poverty reduction on the other illustrates the importance of context. Schools and education systems are not guarantors of faster growth or greater equity. Problems in macroeconomic management and other policy spheres may reduce the benefits of education. In the Arab States, to take a case in point, regional evidence points to a weak association between the expansion of education and productivity (World Bank, 2008*d*). Increasing the supply of skilled labour in an economy marked by low productivity, stagnation and rising unemployment markedly diminishes the private returns to schooling. It can also give rise to large populations of educated unemployed youths and graduates. In Egypt, adults with secondary education account for 42% of the population but 80% of the unemployed (World Bank, 2008*d*).

Other labour market factors are also important. Education can benefit individuals by facilitating entry into higher-earning occupations and raising earnings within an occupation. To the extent that these two benefits accrue equally to women and men, education can help promote gender equality in earnings. However, discrimination and distortions in the labour market based on gender can negate the equalizing effects of education. In Pakistan, women lag far behind men in labour force participation, are concentrated in a much narrower set of occupations, perform mostly unskilled jobs and have substantially lower earnings. While women's earnings are lower than men's at all levels of education, the economic returns to education and skills defined in terms of the earnings increment from an extra year of schooling are greater for Pakistani women than for men in all occupations (except agriculture), so that education is associated with reduced gender gaps in earnings. But women's participation in the labour market increases only after ten years of education – and only about 10% of Pakistani women have had ten or more years of education (as of the early 2000s). Thus gender barriers to labour market entry, the narrowness of female occupations and limited opportunities for education are diluting the equality-promoting benefits of education in Pakistan (Aslam et al., forthcoming).

Many factors can weaken the relationship between more education on the one side and faster, broader-based growth on the other. An increase in the average number of years in school is not always

Discrimination in the labour market based on gender can negate the equalizing effects of education

Improved education is associated with lower levels of child mortality and better nutrition and health

a good proxy for human capital formation. Where education quality is poor and levels of learning achievement are low, the real skills base of the economy may not increase. Rising enrolment and school completion can have a marginal bearing on human capital. Similarly, increases in the average number of years spent in education will not result in more equitable income distribution if large sections of the population are left behind. What matters in this context is the degree to which the poor are catching up in education with the non-poor. The bottom line is that average years in school is an important indicator of human capital but not the only indicator. Quality and equity are also critical.

It is important to recognize the limits to the current state of knowledge on the emerging relationship between education on the one side and economic growth and poverty reduction on the other. Economic modelling exercises can tell us something important about this relationship on the basis of past evidence. The future is always uncertain – but it will not look like the past. Globalization and the increased weight of knowledge-based factors in driving economic growth have important consequences for wealth distribution and poverty reduction nationally and internationally. If knowledge is increasingly recognized as the key to competitiveness, employment and long-term growth prospects, learning endowments become ever more important. In the context of rapidly changing national and international economic structures, there is a premium on the acquisition of transferable skills and knowledge.

Lifelong learning, a core EFA goal, is the critical condition for adjustment to knowledge-based economic life. People and countries need formal education systems that give them opportunities to build their learning skills. And they need opportunities to continually renew their skills and competencies. While literacy and numeracy remain the foundations for all education systems, human development and prosperity in the twenty-first century will rest increasingly on the spread of secondary and post-secondary learning opportunities.

Public health and child mortality: both linked to education

The links between education and public health are well established. Improved education is associated with lower levels of child mortality and better nutrition and health, even when controlling for factors such as income. The transmission

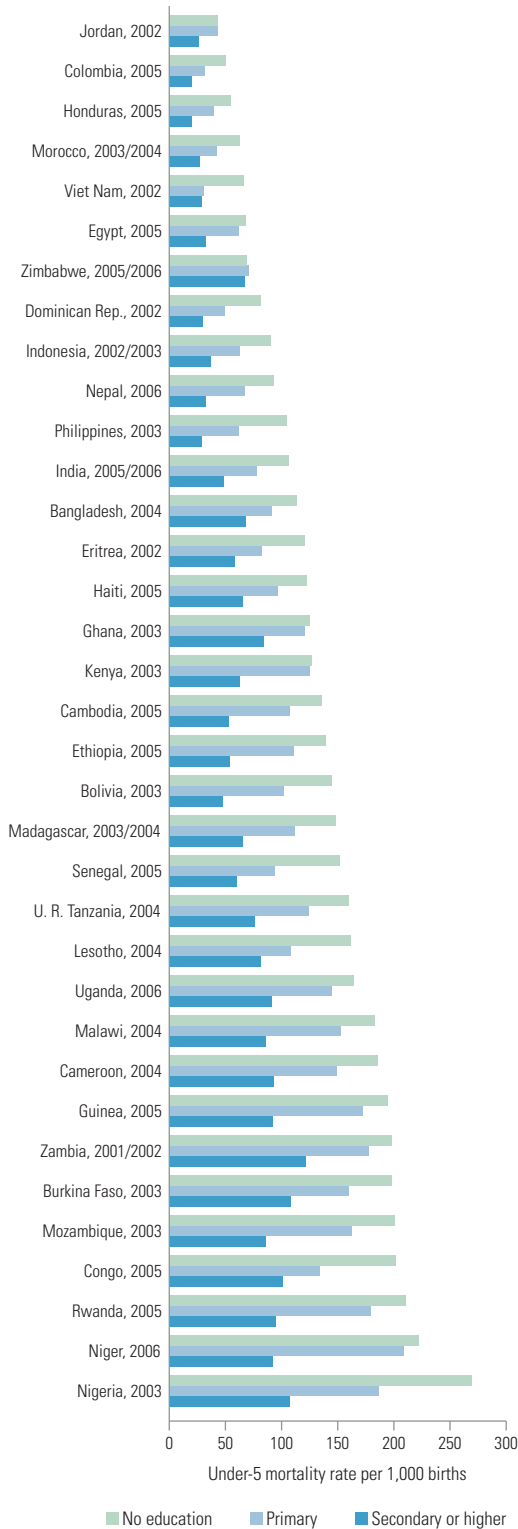
mechanisms from education to benefits in these areas are often complex and imperfectly understood. However, empowerment effects are important. Education can equip people with the skills to access and process information, and with the confidence to demand entitlements and hold service providers to account. Whatever the precise channels of influence, there are compelling grounds for placing EFA at the centre of strategies for getting the world on track towards achieving the health-related MDGs.

Child mortality. One of the international development targets is to reduce the child mortality rate by two-thirds (MDG 4). The developing world is so far off track that very deep cuts in death rates will be required to bring the 2015 goal within reach. At current rates of progress, many countries in sub-Saharan Africa and South Asia will not achieve the target until 2050 or later. Failure to close the gap between existing trends and the target will cost lives: the projected gap for 2015 is equivalent to 4.7 million deaths (see Chapter 2). Overcoming gender gaps and getting young girls into school, an imperative in itself, is also one of the most effective strategies for closing the gap.

The association between maternal education and child mortality is irregular. Having a mother with primary education reduces child death rates by almost half in the Philippines and by around one-third in Bolivia. In other countries, such as Ghana and the Niger, primary education has more modest effects. The strongest effects are at post-primary level (Figure 1.3). Having a mother with secondary education or higher dramatically reduces the risk of child death in almost all countries, often far more so than having a mother with just primary schooling. This reinforces the argument for education and gender equity goals that look beyond the primary level. Leaving aside rights-based arguments and the efficiency case for expanded female access to secondary school, it is increasingly clear that failure to expand opportunity in this area will have grave consequences for public health – and for progress towards the targets identified in the MDGs.

What are the reasons behind lower death rates for children of more educated women? Transmission mechanisms vary by country, but they include nutrition, birth spacing and the use of preventive health interventions (Malhotra and Schuler, 2005). To take one illustration, levels of education are

Figure 1.3: Under-5 mortality rate by mother's level of education, selected countries, most recent year



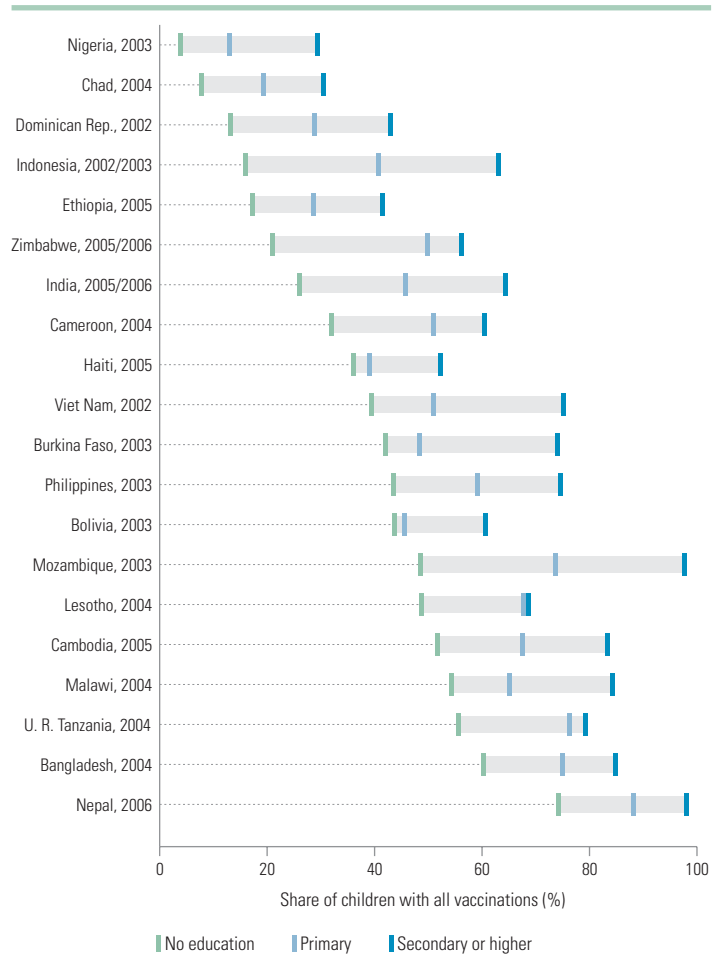
Source: Macro International Inc. (2008).

positively associated in many countries with vaccination levels among children (Figure 1.4).

Maternal mortality. Levels of education also have an important bearing on maternal mortality. Complications in pregnancy and childbirth are a leading cause of death and disability among women of productive age, claiming over 500,000 lives a year. Trend analysis in maternal mortality is problematic because of large margins of uncertainty around the estimates. Nevertheless, the best estimates for 1990–2005 show that mortality rates are falling at a pace far below that needed to achieve the target (MDG 5) of a 75% reduction (WHO et al., 2007). Risk factors include poor nutrition, anaemia and malaria.

The developing world is off track for cutting child deaths and maternal mortality

Figure 1.4: Child vaccination and mother's level of education, selected countries, most recent year (% of 1-year-olds having received selected vaccines by the time of the survey)



Note: 'All vaccinations' = BCG (tuberculosis), measles and three doses of DPT and polio (excluding polio 0). Source: Macro International Inc. (2008).

Around one-third of children under age 5 are stunted, with damaging consequences for cognitive development and health

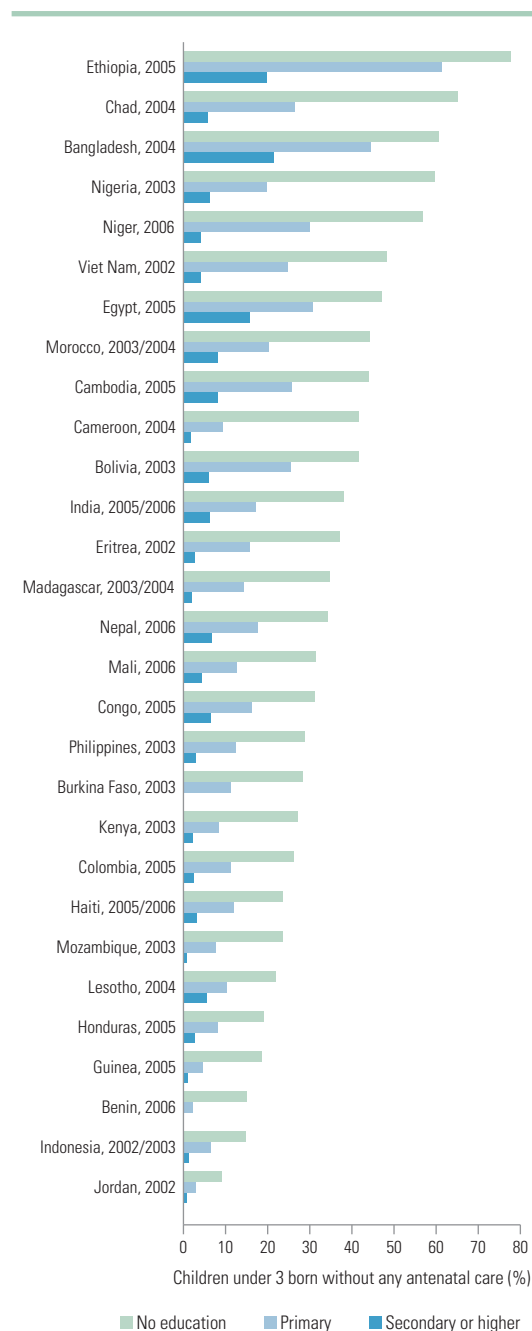
Good antenatal care can significantly reduce risk. Apart from the direct benefits of pregnancy monitoring, women who receive antenatal care are more likely to use other health services, opt for institutional delivery and seek professional advice for post-delivery health complications (Ram and Singh, 2006). It should be emphasized that the relationship between antenatal care and maternal welfare is heavily influenced by the quality of the care, but effective provision can sharply reduce both maternal and infant mortality (Carolli et al., 2001; Osungbade et al 2008). Education is important because it is positively associated with recourse to antenatal services. This is true for both primary and secondary education, though once again some of the most pronounced effects are to be found at secondary level (Figure 1.5). The benefits of education are transmitted through channels that range from access to information to empowerment effects and demand for entitlements. As in other areas, the point to be stressed is not that improved access to antenatal care justifies a strong public policy emphasis on female education. The case for gender equity is rooted in the fundamental human right to education and not in incidental benefits. But any country with a concern for accelerated progress in child and maternal well-being should view the evidence in Figure 1.5 as a useful measure of some of the hidden costs of gender disparity in education.

Nutrition. Around one-third of children under 5 are stunted, with damaging consequences for cognitive development and health, and often fatal consequences for life (Chapter 2). Stunting is one proxy for hunger, which the development goals aim to halve by 2015 (MDG 1). Here, too, the world is off track, and sub-Saharan Africa and South Asia, the regions with the highest rates of stunting, have made the least progress. Cross-country evidence suggests education is powerful protection against stunting. Recent research using household survey data found that having a mother who had completed primary education reduced the risk of stunting by 22% in Bangladesh and 26% in Indonesia (Semba et al., 2008). This was after controlling for factors such as household wealth, location and family size. Higher levels of parental education in both countries are associated with greater uptake of a range of health inputs, including childhood immunization, Vitamin A intake and use of iodized salt.

Other empowering effects mediating between maternal education and the physical growth of children have been observed. One potential pathway

involves the association between increased maternal education and the decision-making authority of mothers in claiming resources within the household. In many contexts, mothers are more likely than fathers to allocate household resources in ways that promote child nutrition (Huq and

Figure 1.5: Antenatal care by mother's level of education, selected countries, most recent year



Source: Macro International Inc. (2008).

Tasnin, 2008). As Figure 1.6 shows, the inverse relationship between stunting and maternal education holds across a large group of countries and all developing regions.

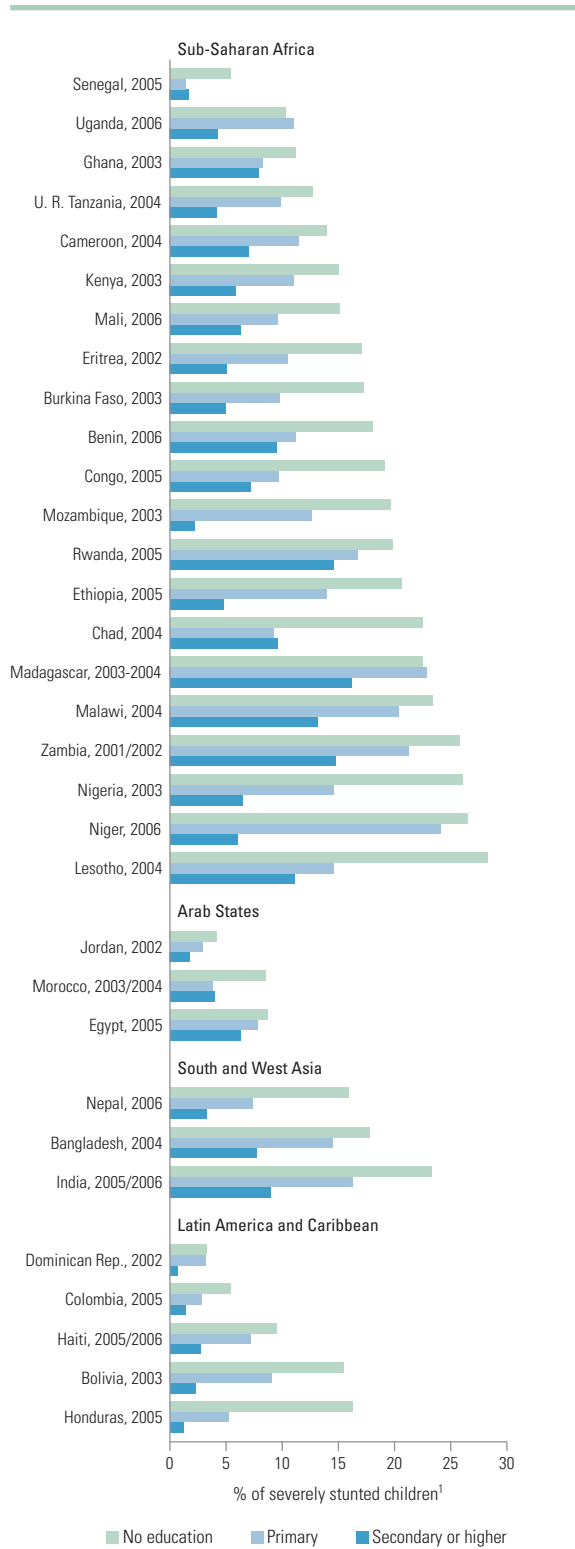
HIV/AIDS. The development goals call for countries to ‘halt and begin to reverse the spread of HIV/AIDS’ (MDG 6). There is strong evidence that primary education has a significant positive impact on knowledge of HIV prevention, with secondary education having an even stronger impact (Herz and Sperling, 2004). One study, covering thirty-two countries, found that women with post-primary education were five times more likely than illiterate women to know about HIV/AIDS (Vandemoortele and Delmonica, 2000). Education systems could play a far more active and effective role in combating HIV/AIDS through teaching and awareness-raising about risky behaviour.

Each of the areas considered above illustrates the potential for education to accelerate progress towards the MDG targets. In important respects, though, static pictures of the potential benefits hide some of the dynamic gains over time. For example, increased female access to education generates cumulative benefits linked to cross-generational effects because the level of maternal education is one of the strongest determinants of whether daughters enrol in school (Alderman and King, 1998; UN Millennium Project, 2005a). Unfortunately, costs are also cumulative. Just as the world today would have far lower levels of child mortality and stunting had there been greater progress in education during the 1990s, so the education deficits of today will result in human costs in the future. Improving educational opportunity, especially for girls, is not only a priority in its own right but also essential for improving educational outcomes in the next generation – and for reaching wider goals in public health and nutrition.

Democracy and citizenship – from local to global

Education is about much more than what happens in schools. Through education, societies inculcate their values and ideas, and equip their citizens with skills. This year’s Report focuses on education governance. Yet education itself is intimately linked to wider governance issues in society – and to the empowerment of people. As Nelson Mandela has put it: ‘Education is the most powerful weapon which you can use to change the world.’

Figure 1.6: Severe stunting among children under 3 by mother’s level of education, selected countries, most recent year



The education deficits of today will result in human costs in the future

1. Severe stunting is defined as a height-for-age score below minus 3 standard deviations from the reference median (see glossary). Source: Macro International Inc. (2008).

There are strong links between education, citizenship and informed decision-making

Some of the most powerful effects of education operate through the channels of democracy and participation. History provides plenty of evidence that the effects are neither universal nor straightforward. There are numerous examples, past and present, of societies with a well-educated citizenry that might not be considered model democracies. And there are countries with relatively low levels of education, as measured by indicators for literacy and average years in school, that have a well-developed democratic tradition. India is an example. Yet education is conducive to democracy. It has the potential to equip people with the skills, attitudes and norms needed to hold governments to account, to challenge autocracy and to assess policies that affect their lives (Glaeser et al., 2006). At an individual level, education is a crucial determinant of whether people have the capabilities – the literacy, the confidence, the attitudes – that they need to participate in society (Sen, 1999). As a concrete example, when poor and marginalized people are educated, they are often more likely to participate in meetings of local political bodies and devolved bodies managing education, health and water resources (Alsop and Kurey, 2005).

It is not just education that matters for democracy. Cross-country research has drawn attention to the importance both of the average level of education and the education attained by the majority of society in creating the conditions for democracy (Castello-Climent, 2006). Recent evidence from sub-Saharan Africa is instructive. Analysis of national survey data in Malawi found that even primary schooling promotes citizen endorsement of democracy and rejection of non-democratic alternatives (Evans and Rose, 2007b). Research into relationships between education and democratic attitudes in eighteen countries of sub-Saharan Africa strongly reinforces this finding (Evans and Rose, 2007a). Controlling for a wide range of factors, including religion, age, gender and political preference, schooling emerged as by far the strongest social factor explaining adherence to democratic attitudes. Moreover, the education effects increase in a linear form with the levels of education attained. People of voting age with a primary education are 1.5 times more likely to support democracy than people with no education, rising to three times more likely for someone with secondary education. Here, too, the democratizing effects of education appear to operate through the channels of participation and information: more education is significantly associated with increased political discussion,

political knowledge and access to political information from the media.

Due caution has to be exercised in extrapolating lessons from research in a group of countries in one region and applying them to other regions. There is no one model for democratic governance, let alone a universal blueprint for the development of democratic institutions. Even so, the evidence for Africa strongly suggests that investment in education of good quality may be among the most effective antidotes to autocracy and unaccountable governance.

Links between education and citizenship go beyond public attitudes towards democracy. One reason education is conducive to democracy is that it can facilitate the development of informed judgements about issues that have to be addressed through national policies. In any country, public debate and scrutiny can help strengthen policy-making. And once again, what is true at national level applies internationally as well. One feature of global integration is that governments and populations worldwide face problems – in finance, trade, security, environmental sustainability – that do not respect national borders. Education has a key role to play in fostering national and international support for the multilateral governance needed to address such problems.

Climate change provides an illustration. The role of science in developing the skills and technologies on which productivity, employment and prosperity increasingly depend is well known. Less attention has been paid to the role of scientific education in increasing children's awareness of the great environmental challenges their generation faces. Climate change poses a particularly stark set of threats for humanity, in general over the long term and for the poor in particular over the medium term. Understanding the causes of climate change is difficult because of the complex processes that influence the build-up of greenhouse gases in the atmosphere. Evaluating the effects is even more challenging because of the time horizon involved and the uncertainties about when and where effects will be felt and how ecosystems will respond. Similarly, any evaluation of policy responses at national or international level has to grapple with issues that range from energy policy to approaches to burden-sharing in any multilateral agreement.

Understanding the science behind climate change is a vital first step in raising the awareness needed to drive political solutions to the threat. This is true both technically speaking and in terms of people having a sufficient grasp of evidence to assess the action – or inaction – of their governments. The PISA 2006 assessment of scientific literacy among 15-year-old students offers some important lessons (OECD, 2007*b*). When the assessment was published, international attention focused on the ranking of countries. Less emphasis was placed on an innovative survey of the relationship between scientific literacy and global environmental problems. The results of that survey point to:

- A strong association between student levels of environmental awareness and science performance, in all participating countries. On average, an increase of one unit on the PISA composite index of environmental awareness was associated with a performance difference of forty-four score points.
- A significant relationship between science knowledge and environmental awareness on the part of the general public. The majority of citizens in countries with a mean score in science below the basic literacy threshold (of 450 score points) were less aware of environmental issues.
- An association, in all OECD countries surveyed, between higher science performance and a stronger sense of responsibility for sustainable development. That is, students demonstrating higher science knowledge reported feeling more responsible for the environment.

These findings point to the potential for a double dividend. Strong performance in science and awareness of global environmental problems tend to go hand in hand, and both are associated with a sense of responsibility supporting sustainable environmental management. Conversely, weak performance in science is associated with lower awareness of environmental problems. Failure in scientific education will mean less widespread – and less informed – public debate on issues such as climate change and wider environmental problems. This in turn will reduce the pressure on governments to act. In facing up to the challenge of global warming and wider problems, EFA is a vital part of the toolkit for national and international change. □

Conclusion

Much has been achieved since governments signed the Dakar Framework for Action. Perhaps more than in any other area, progress in education bears testimony to the fact that international commitments can make a difference. That does not diminish the case for a greater sense of urgency and stronger political leadership. The bottom line is that 'business as usual' will leave the world far short of reaching the commitments made. And as this chapter shows, shortfalls in education come at a high price.

Breaking with business as usual will require change at many levels. Equity has to be put at the centre of the EFA agenda. As Chapter 2 demonstrates, inequalities in opportunity for education represent a formidable barrier to the achievement of the Dakar goals. Removing that barrier will require political leadership and practical strategies that tackle the underlying causes of disadvantage.

Governance is a central concern. The aim of good governance in education, as in other areas, is to strengthen accountability and give people a voice in decisions that affect their lives so as to enable the delivery of good-quality services. Good governance is also about social justice and fairness. Education for all, as the term itself makes clear, is about all citizens enjoying an equal right to quality education. Translating good governance principles into practice involves reforms in institutional arrangements that link children and parents to schools, local education bodies and national ministries. Unfortunately, the design of governance reform is often guided by blueprints that produce limited benefits, especially from the perspective of the poor, the marginalized and the disadvantaged.

Accelerated progress towards EFA and the goals set in the Dakar Framework for Action is a condition for accelerated progress towards the MDGs. More than that, it is a condition for the development of more equitable and more sustainable patterns of globalization. But accelerated progress towards EFA cannot take place without a far stronger commitment on the part of national governments and international donors to equity in education. Inequality has to be brought to the centre of the EFA agenda. This Report explores why equity matters, and what can be done nationally and internationally to overcome disparities. ■

Accelerated progress towards EFA requires a stronger commitment by countries and donors to equity in education