The Millennium Development Goals: three proposals for renewing the vision and reshaping the future

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Executive summary

The Millennium Development Goals (MDGs) represent a commitment by the world's governments to improve the lives of the world's poor by 2015. That commitment calls for deep cuts in poverty, reduced child mortality, enhanced access to education, greater gender equity and wider goals. Much has been achieved. Many countries have registered strong advances. The MDGs have put poverty on the political map, created a focal point for aid agencies, and provided a yardstick for measuring progress.

With the 2015 target date drawing closer there is a renewed momentum behind the MDGs. Several governments, civil society groups, and private companies have issued an MDG 'Call to Action' – and in September, 2008 will convene a high-level summit. The stakes are high. Many countries are currently off track for the MDGs. Getting 'on-track' will save lives, free millions of people from the grip of poverty, extend opportunities for education, and strengthen the credibility of international cooperation.

This paper argues that a renewed commitment to the MDG ambition should go hand-in-hand with a renewal of the targets and goals themselves. It focuses for illustrative purposes on three areas. The first concerns social justice. Overall progress towards the MDGs has often been accompanied by rising inequalities, notably in areas such as child mortality. Achieving 2015 goals while leaving large sections of the poor behind is to comply with the letter of the MDGs while violating their spirit. We set out the case for equity-related targets that put social justice at the centre of the MDG agenda.

The second section turns to education. We argue that the current MDG framework is out of touch with political reality and the aspirations of people. In particular, the focus on primary education fails to address the dynamic synergies linking progress in this area, and advances in early child development, secondary education, and adult literacy. The Education For All (EFA) framework adopted by governments in 2000 provides a ready template for MDG renewal. We call also for a strengthened international commitment to early childhood schooling because it is one of the most neglected and most vital foundations for progress.

The battle against poverty will not end on 31 December, 2014. New threats are emerging. None of these is more potent than global warming. There is now a clear and present danger that climate change will first stall and then reverse the human development gains achieved under the MDGs Mitigation is one priority. Another is climate change adaptation in the poorest countries. These are long-term challenges demanding urgent action and commitment by

rich countries, many of which could be enshrined in the MDGs,

Introduction

Unanimously adopted in 2000 by 147 governments, the eight Millennium Development Goals (MDG) and eighteen targets marked a watershed in development cooperation. The goals define a bold vision for cutting extreme poverty and advancing human progress in other areas, including the reduction of child and maternal deaths, education and access to water and sanitation. As we look towards the 2015 deadline for achieving the goals, one question looms large. Will the MDG commitments go down in history as a defining moment in the fight against poverty? Or will they be recalled, in the spirit of Samuel Johnson's unkind observation on second marriages, as a triumph of hope over experience?

This is a critical moment for reflection and action on the MDGs. With around seven years left to the 2015 target date, there has been much stock-taking of where we are, who is off-track, and what needs to be done. There is a growing recognition that business-as-usual will not deliver on the MDG promise for a large section of humanity. The good news is that, business-as-usual is not the only option. The MDG 'Call to Action' by several governments, faith leaders, civil society groups and private sector companies signals a

renewed momentum for change. Looking ahead, there is an opportunity to build that momentum through a series of major international meetings, including the EU Council in June, the G8 summit in July, and the UN summit on the MDGs planned for September 2008. These meetings provide governments with a chance to renew the MDGs by strengthening some of the targets and goals, and by looking beyond 2015 to the great poverty challenges that will face future generations.

The stakes could hardly be higher. Getting the world on track for the MDGs is not an abstract philosophical exercise: it is an endeavour that has the potential to save the lives of millions of children, enable a large section of humanity to break out of poverty, create opportunities for education, and break down gender inequalities. Failure will come with enormous costs attached. Most immediately, those costs will be borne by the world's poorest and most vulnerable people to whom the MDG promise was made. But failure will also call into question the structures of international cooperation, weaken multilateralism, and reinforce the resentment that will inevitably accompany a model of globalisation that tolerates mass poverty in the midst of rising prosperity. As political leaders grapple with the immediate crises on the political agenda – the credit-crunch, violent conflicts, the threat of recession and so on – it is important that they do not downplay the importance of the human crisis that the MDGs were established to resolve. It is important also that they recognise the fact that the window of opportunity for decisive action is closing. Putting in place the policies, mobilising the resources, and building the capacity needed to deliver results takes time and long-term political commitment. Waiting until 2014 to act is not an option for success.

The MDGs are not without their critics. As has been regularly pointed out, some of the goals are badly framed. Many commentators also argue that most targets are 'unrealistic' when assessed against historical precedent. There is some justification for both views. Not all of the MDG targets were sufficiently thought through – gender parity in education by 2005 being a case in point. In other areas, achieving the MDGs will require a rate of progress pressing the edges, or going beyond, precedent.

Yet the MDGs are not a utopian fantasy. True, the targets are ambitious. But had they been set so low as to be attainable without fundamental change, they would have been criticised for under-ambition. Some countries, including many that are making rapid progress from a low base, may not achieve some targets. However, it is possible for most countries that are off-track to get on-track if the necessary financial and technological resources are lined up behind credible national strategies. In some areas, the headline progress report provides grounds for optimism:

- the number of people living on less than $1 a day has fallen by around 134 million since 1999. Poverty incidence is now 18% compared with 29% in 1990 – one of the most rapid poverty reduction episodes in human history. While sub-Saharan Africa accounts for a growing share of world poverty (it is currently around one-third), sustained economic growth in a large group of countries – currently around 3% per capita

for the region – has created the potential for a poverty reduction 'take-off';

- the number of children out of school fell from 96 million to 72 million between 1999 and 2005, with rapid increases in enrolment in sub-Saharan Africa and South Asia. In sub-Saharan Africa, the number of out-of school children fell by 11 million. Countries such as Tanzania, Mozambique, Burkina Faso, Nepal and Yemen have combined rapid increases in enrolment with improved gender parity;

- in mid-2006 there were 1.6 million people in developing countries receiving antiretroviral treatment, including around 20% of HIV-positive pregnant women

- around 80 million people a year are gaining access to clean water and a slightly lower number to sanitation;

- there are 3.5 million fewer child deaths annually than in 1990, with some of the world's poorest countries – Bangladesh, Nepal and Ethiopia among them – cutting death rates by 40-50%; and,

- innovative financing strategies have been used to mobilise resources in public health. The International Financing Facility for Immunisation (IFFIm), Advance Market Commitments for vaccines have contributed to the expansion of immunisation coverage, with an additional 500 million children vaccinated against measles since 2000. On one estimate, IFFM financing ($1bn in 2006) will have saved 5 million child lives by 2015. Coverage rates for insecticide treated bed nets have at least tripled since 2000.

To those who maintain that the MDGs represent an indulgence of over-ambition, it is worth asking two questions. First, how many commentators in 1999 would have predicted progress on this scale? Second, what is the ethical basis for urging reduced ambition in a world that has the financial, technological, and other resources needed to make a breakthrough? The flip side to the progress report is the deficit report. It is worth recalling that there are still 10 million child deaths annually – and that the vast majority of countries are off-track for the MDG target. Malnutrition leaves one-quarter of children stunted, threatening their lives, damaging their brains, and impairing their education potential. Around 1 billion people living in extreme poverty. And while public health initiatives have registered real advances, fewer than 10% of HIV/AIDS victims have access to retrovirals; and malaria still claims over 1 million lives, most of them African children.

Against this backdrop, it might be argued that insufficient ambition is the real indulgence. Perhaps the real question to ask is why a world that could do so much still does so little. Moreover, it is important to recall that, even if the MDGs are achieved, large deficits will remain. Even if the MDGs are achieved, there will still be over 2 billion people lacking access to basic sanitation and almost 1 million lack access to clean water. Indeed, the fact

that some 2 million children still die each year from diarrhoea – or, more accurately, for want of a safe toilet and a glass of clean water – is a real indictment of our standing as a human community.

It would clearly be wrong, if not fanciful, to attribute advances in the war against poverty solely to the MDGs. By the same token, there is little question that the MDG targets have made a difference. The targets have provided a moral compass and a set of yardsticks for measuring progress. National governments, multilateral development banks, and bilateral donors have all scaled-up and strengthened the monitoring of progress towards the MDGs. More than that, they have placed poverty reduction at the centre of the international development agenda, helping to stimulate more rapid expansion of access to basic health, education and wider goals.

This paper does not provide a comprehensive assessment of progress towards the MDGs. The overall picture is well known. Some regions – notably sub-Saharan Africa – and fragile states are falling behind on most indicators. Meanwhile, progress on some of the most important goals – notably child mortality and nutrition – has been far too slow, even in countries that have sustained high growth. Less than one-fifth of the developing world's population lives in countries that are on track for achieving the child mortality target. To put this in perspective, the gap between target and trend amounts to the equivalent of around 4.4 million additional deaths in 2015. Here we look beyond the progress report to the future. We focus on three themes that are critical to the delivery and renewal of the MDG project.

- **Putting social justice and equity at the heart of the MDG agenda.** The MDGs are about more than hitting numerical targets. They enshrine principles based on human rights, equity and social justice. Deep inequalities in life-chances based on income, gender, location and other markers for disadvantage violate these principles. The problem with the MDGs is that they are largely 'distribution neutral'. They describe and encourage governments to report on average national progress – and averages can improve while disparities worsen. This is what is happening in many countries. The upshot is that countries can be on-track for the MDGs despite rising inequalities in key indicators such as child mortality, nutrition and access to basic services. Of course, not all inequalities are unacceptable, but there are acceptable limits to inequality. Most people would accept that large disparities in the opportunity to survive childhood breach those limits. The bottom line is that failure to tackle deep inequalities is a source of social injustice. But persistent inequalities also act as a brake on progress towards the MDGs themselves. We highlight the implications by reference to the goals on nutrition and child mortality. In both of these areas, the MDGs could be supplemented and strengthened by equity based targets and reporting systems.

- **Strengthening and renewing the goals – beyond primary education.** The MDGs emerged out of process of wide-ranging discussion and consultation. Given their scope and the complexity of

the issues covered, it would be extraordinary if their architects had delivered the perfect product. In practice, experience points to the need for some goals to be amended and broadened. We highlight this by reference to education – an area in which progress is both an end in itself, and vital to advances in health, poverty reduction and wider goals. Under MDG 2, the focus is squarely on universal primary education and gender equity. These remain critical indicators for progress. The problem is that the MDGs for education are too narrow. They do not cover pre-school, transition to secondary school, literacy or – critically – the quality of learning. In each of these areas, the Education for All framework adopted by governments in 2000 could enrich and strengthen the MDGs.

- **Looking to the future – climate change and development.** The MDG target date is now just over one standard political cycle away. It goes without saying that the struggle against mass poverty and inequality will not end on December 31, 2015. It is therefore important that governments look beyond 2015 to the emerging challenges of the first half of the 21st Century. Climate change represents the most serious challenge. We are already witnessing the 'early harvest' of global warming as poor people across the world attempt to cope with more a more hostile and less predictable climate. Increased exposure to droughts, storms, floods and changing ecological patterns are already slowing progress towards the MDGs. Beyond 2015, the danger is that climate change will first slow and then reverse human development. The consequences will be felt by future generations, with the world's poorest people facing the earliest and most damaging impacts. Averting that outcome will require urgent action not just on mitigation but also climate change adaptation. This is an area in which some creative 'joining-up' of the MDGs with a post-2012 multilateral framework is important, with an early focus on technology transfer, adaptation strategies, and the innovative use of carbon-trading to support clean energy development.

Putting social justice and equity at the heart of the MDG agenda

The MDGs represent the international community's time-bound and quantified targets for addressing human deprivation in many dimensions, including income poverty, hunger, child death, education, and environmental sustainability. Implicit in the MDGs is a commitment to social justice and greater equity within an interdependent global society and economy. That commitment needs to be made explicit.

Overcoming extreme life-chance inequality and absolute deprivation should be central to the MDGs. There are at least three reasons for a strengthened focus on equity. First, most people feel that egregious disparities in life-chances based on circumstances over which individuals have no, or limited, control, violate basic precepts of fairness and social justice. The idea that the risk of death among children should be contingent on the socio-economic status of their parents, the colour of their skin, their gender, or other inherited markers for disadvantage, is not consistent with the moral and ethical teaching that underpin most societies. Second, most societies have ideas (and legislation) relating to what might be thought of as a social minimum in areas such as nutrition, income, housing and education determined by reference to social norms about inequality. Third, and beyond these intrinsic considerations, extreme inequality is an increasingly important barrier to the attainment of the MDGs themselves. It follows that policies which are good for advancing equity and combating extreme inequality are also good for overall progress towards the MDGs.

Enhanced equity does not figure as a central MDG concern. There are only two MDGs – on basic education and gender parity – that expressly require reduced inequality. Progress towards other MDGs is entirely compatible with deepening inequalities. For example, cutting absolute income poverty is perfectly consistent with rising income inequalities within and between countries, as witnessed by the experience of countries such as China, Vietnam and India. Similarly, countries can reduce malnutrition and register falling child mortality rates, while experiencing increases in disparity between rich and poor. The relationship between income poverty and income inequality is a complex one. High levels of equity at a very low level of average income and low growth is clearly not conducive to poverty reduction. In the non-income life chance domain, equity of opportunity would be seen by many as an end in itself. And it is these domains that the MDGs should prioritise for an equity overhaul.

Inequalities in child mortality represent a growing cause for concern. The 10 million child deaths that happen each year as a result of poverty and infectious disease represents a potent reminder of what is at stake with the MDGs. Child survival is surely one of the most basic of all human rights. Yet child survival prospects are powerfully determined by two factors: where you are born and the wealth of your parents. As shown in Figure 1, there is a strong socio-economic gradient for child survival, with death rates for the poor typically three-to-four times higher than for the rich. While overall death rates

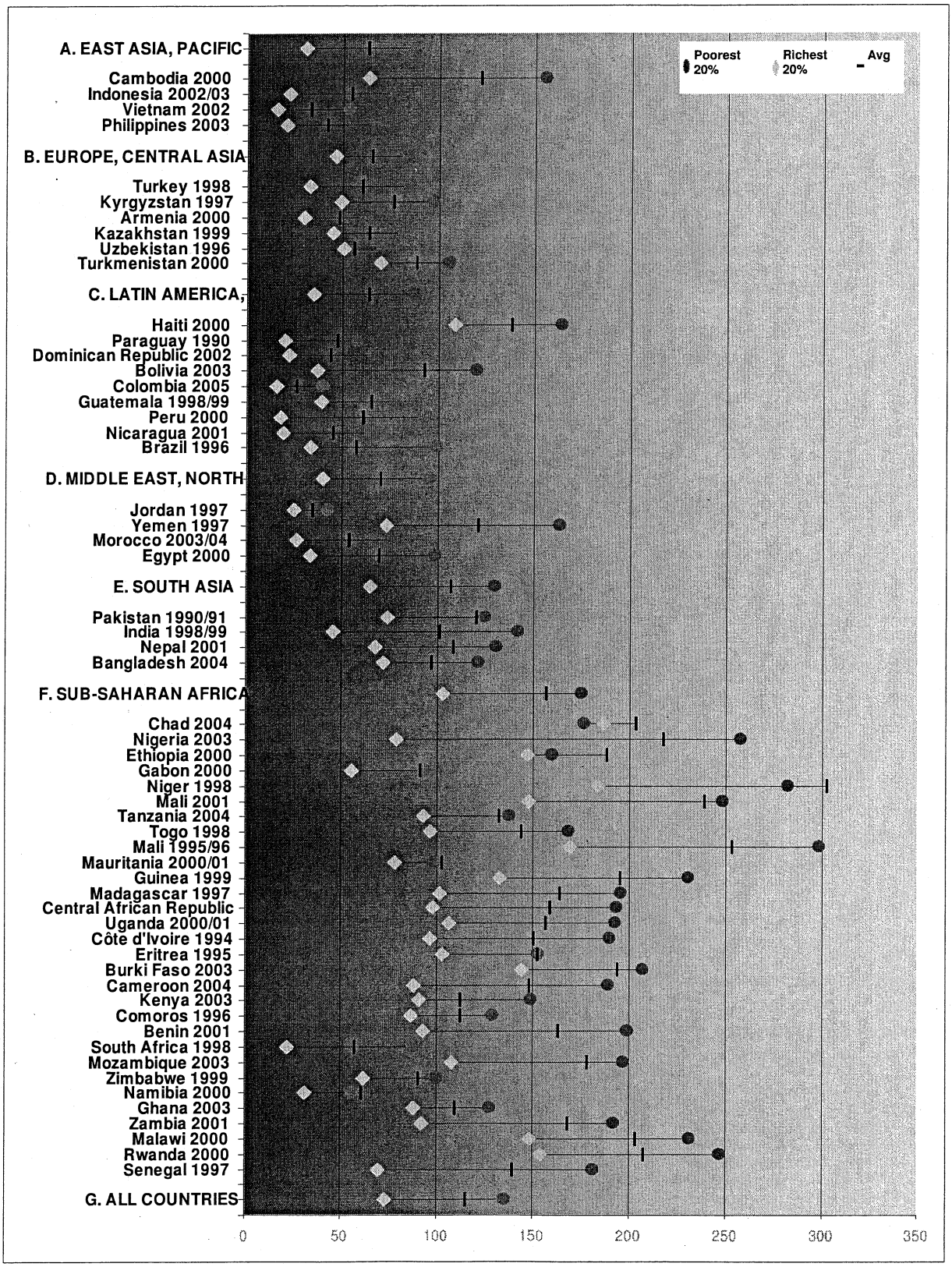
are falling, they are falling least rapidly for very poor (where death rates are highest). At the UNESCO *Global Monitoring Report* we have compared progress in child mortality reduction by socio-economic group for twenty-two countries, using Demographic Health Survey data to compare the situation post-2020 with the mid-1990s. In thirteen of these cases, the rate of reduction for the poorest 20% has been below the average, and in eleven it has been below the rate for the richest 20%. Thus is a large group of countries – including Tanzania, Nigeria and Nicaragua - child mortality is declining more rapidly among the rich than the poor. From an equity perspective, these outcomes are hard to justify. From an MDG efficiency perspective they are counterproductive for an obvious reason: the poor tend to have more children and higher death rates.

Outcome inequalities in child death reflect unequal access to nutrition and basic health services. Across much of the developing world, the poorest households facing the gravest health risks have the most limited access to basic services. There are many dimensions of inequality. In many countries, the rural-urban divide is among the deepest social fault-lines, reinforced by disparities based on gender, language and wealth. A near-universal double burden experienced by poor children is that they are more exposed to health risks as a result of poor nutrition, but are less likely to be treated when sick with life-threatening illnesses such as acute respiratory tract infection (ARI) (Figure 2). Inability to afford treatment, distance from clinics and the unavailability of trained staff or medicine all contribute. So do inequalities in service provision. In Burkina Faso, there is roughly one midwife for every 8,000 people in richer zones, against one for 430,000 people in the poorest zone. In Malawi, 87% of people live in rural areas, but 96% of doctors are to be found in urban areas. In many countries, gender inequalities act as another powerful constraint on progress towards the MDGs, intersecting with rural-urban differences and wider socio-economic disparities. Intra-household factors are also important in many countries. In India, the death rate for girls aged 1-4 is some 50% higher than for boys, reflecting the institutionalised gender discrimination that starts at birth.

Economic growth alone is an insufficient vehicle for eroding many basic life-chance inequalities. Greater income at the household level enables families to spend more on food, clean water, and health care. But income growth will not remove the barriers to progress linked to inequality. Empirical evidence suggests that sustained per capita income growth of 2.5% a year in sub-Saharan Africa would reduce malnutrition by between 27% and 34%. Achieving the MDG target of halving malnutrition would require complementary measures, including targeted income and food transfers, improved access to responsive health services, and measures to protect vulnerable households from events such as drought.

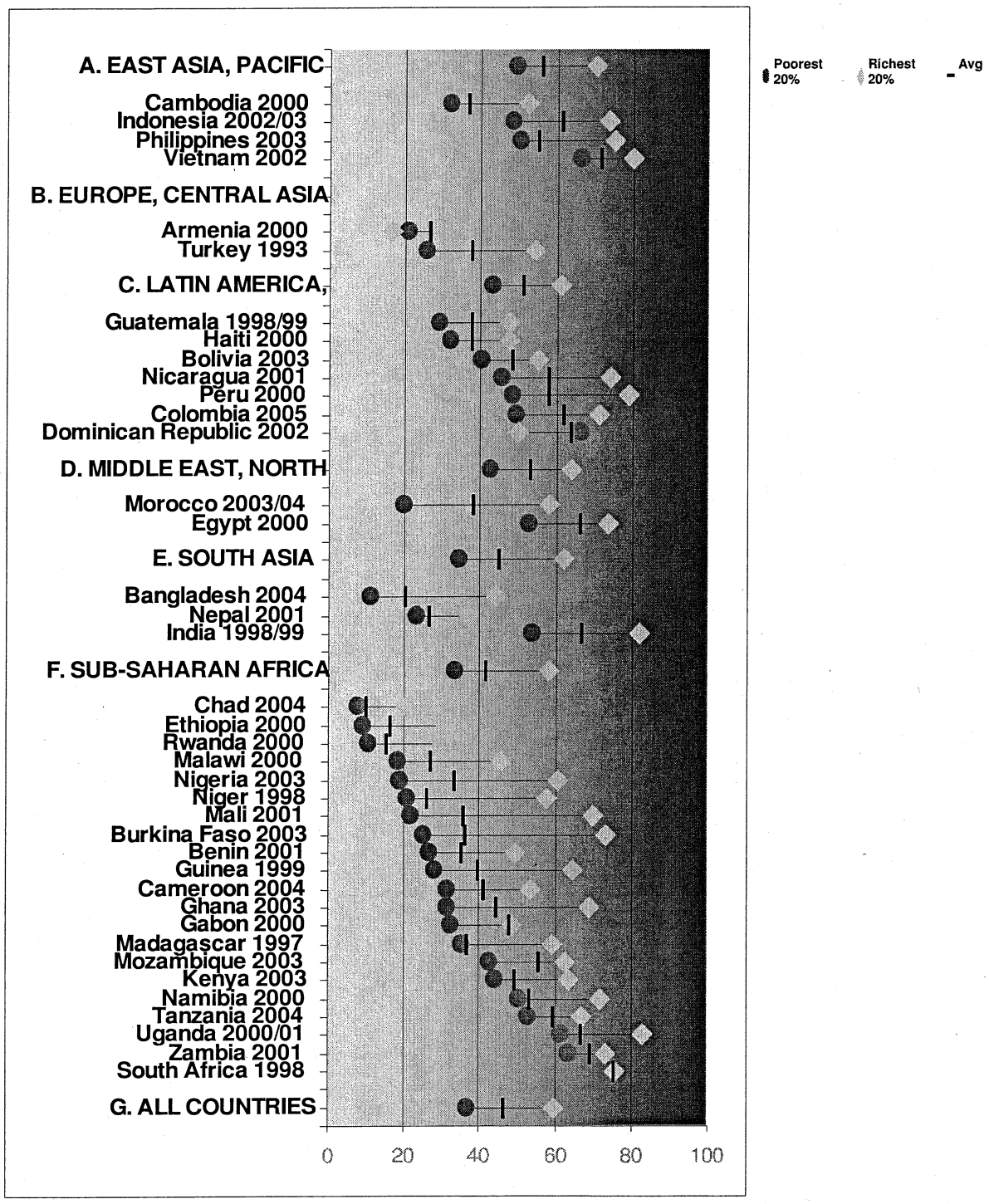
Experience within South Asia underlines the importance of public policies. It is often forgotten that South Asia has higher rates of malnutrition than sub-Saharan Africa, along with high mortality rates. Economic success is not transforming this picture. Rapid economic growth in India has

Figure 1 Child mortality gaps between rich and poor



Source: Gwatkin et al., Socio-economic Differences in Health, Nutrition and Population within Developing Countries, 2007

Figure 2 The poor are less likely to receive treatment for ARI



Source: Gwatkin et al., Socio-economic Differences in Health, Nutrition and Population within Developing Countries, 2007

unquestionably been one of the good news stories in globalisation. However, the good news does not extend to nutrition and child mortality. High growth has not put India on track to achieve the MDG for cutting child death rates. In fact, child death rates have been falling far less impressively than in countries with lower average incomes and lower growth rates. For example, over the past decade, Bangladesh has recorded one half of India's per capita income growth rate, but double its rate of decline for child mortality. As for child mortality, malnutrition levels have fallen at unimpressive rates since 1990 (around 1.5% a year). Within this overall picture, the rate of decline was faster for the richest 20% than the poorest 20%, faster for boys than girls, faster for urban than rural areas, and faster for high caste than low caste people. As these outcomes suggest, inequality matters a great deal. The wide gap between India's economic and social indicators raises important questions at many levels. It is sometimes forgotten that India has among the highest proportion of underweight children in the world - and almost double the level for sub-Saharan Africa. Indeed, around one-in-three of the world's 150 malnourished children are Indian, implying that India's progress has global ramifications for the MDGs.

Extreme income inequality can also hold back extreme poverty reduction. Economic growth is a necessary condition for poverty reduction. No country can expect to halve extreme poverty by 2015 in the absence of sustained growth. However, poverty reduction is a function of two things: increments to average and the share of that increment captured by people living below the poverty line. As income inequalities widen in many countries, the conversion of growth into poverty reduction is weakening. Countries such as Vietnam have been far more efficient than, say, Peru in converting growth into poverty reduction partly because the poorest 20% capture around four times as much of national income. In India, high growth has had only a modest effect on poverty incidence, with the number of extreme poor remaining roughly constant at around 300 million. As illustrated by modelling work in the 2005 *Human Development Report*, doubling the share of increments to income captured by people living in extreme poverty in Kenya would reduce the time horizon for lifting the median household out of poverty from 2030 to 2015. The underlying point is that the MDGs require a focus not on economic growth or equity, but on growth with equity. That imperative requires strategies for enabling poor households to produce their way out of poverty, along with social protection programmes that reduce vulnerability and extend opportunity.

What is true at a global level also applies at a national level. Currently, the poorest 40% of the world's population, broadly corresponding to households surviving on less than $2 a day, account for around 3% of global GDP. Increasing that share through national poverty reduction, more balanced trade rules, and increased aid, would give a twin impetus to equity and poverty reduction. Unfortunately, the MDG commitment to a fairer trading system appears to have little impact on the positions adopted by a number of developed countries in the Doha Round negotiations of the World Trade Organisation. Unfair agricultural trade rules, residual protectionism, and complex rules-of-origin programmes continue to hold back some of the world's

poorest countries. Moreover, the EU's approach to negotiations with sub-Saharan African countries on Economic Partnership Agreements has raised questions about its commitment to a trade and development that prioritises poverty reduction.

The idea that there is a trade-off between growth and equity is misplaced. Rising inequality within countries has been one of the features of the current phase of globalisation. However, some countries have combined strategies for accelerated growth with enhanced equity, with attendant gains for MDG progress. Brazil is one of the most striking examples. Since 1998, extreme poverty in Brazil has been falling at three times the rate required to achieve the MDG target. Over the same period, the Gini coefficient has fallen by around three points, with the income of the poorest 20% increasing at more than double the average and six times the rate for the richest 20%. Decomposition analysis suggests that redistribution accounts for around 80% of total poverty reduction since 2000. Impressive advances have also been recorded on a wide range of social indicators. Since 1990, the child mortality rate has decline from 57 deaths for every 10,000 live births to 20. Similarly rapid progress has been registered in cutting malnutrition, increasing school participation, and advancing literacy. Many factors have contributed to Brazil's social advance. Around 1% of GDP has been transferred to the poorest households through the Bolsa Familia's targeted conditional cash transfer (CCT) programmes in nutrition, education and health. Health programmes have been reformed and scaled-up to provide more efficient services for the poor: the state of Cerea, with one of the highest child death rates in the country, has achieved some of the most rapid reductions in mortality. Underpinning all of these achievements has been political leadership and a strategy for social progress that has put equity at the heart of the agenda, with a strong commitment to narrow life-chance gaps between rich and poor, between states, and between racial groups.

There is a strong case for putting equity goals at the heart of a revised MDG agenda. The MDGs have done a great deal to address poverty reduction and deprivation. But we now need a second generation of MDG targets to broaden the focus and increase the weight attached to social justice and equity. Why should the September 2008 summit treat this as a priority? First, a commitment to the MDGs is incompatible with the current level of tolerance for extreme life-chance disparities. Second, equity-related targets would encourage governments, donors and multilateral agencies to attach more weight and provide greater visibility to the most disadvantaged and vulnerable groups that are being left behind. Third, a strengthened focus on the progress of these groups could serve as a catalyst for the development of public policies aimed explicitly at narrowing disparities in life chances. None of this is to understate the complexity of constructing equity-related targets, or the political sensitivity of turning the spotlight on disparities that are persistent, stubborn and difficult to change. That said, there are examples to draw upon. For example, the United Kingdom has a Programme for Action in health that targets a 10% reduction in health outcome inequalities as measured by the gap between 'routine and manual' families and the average. The annual reporting process has helped policy makers revise policies in the light of

progress towards the targets. The matrix below provides some tentative and initial illustrative ideas for discussion on what equity enhancing MDG targets might look like.

Goal	Illustrative equity goals for 2015	Indicative Strategies
1. Halve the share of people living in extreme poverty **Halve the share of people living with malnutrition** Current indicators: Progress in cutting $1 a day poverty Nutrition targets	Establish a Gini ceiling of X Ensure that the poorest 20% capture at least Y of increments to national income Narrow the gap between the mean income and the poorest X% by Y Halve the nutrition gap between rural and urban areas Eliminate gender gaps in nutrition	Strong macro-economic management and broad-based growth strategy Social protection programmes aimed at reducing risk and extending opportunity (Mexico, Brazil and South Africa examples) The adoption of 'zero hunger' strategies for eliminating malnutrition and micro-nutrient deficiency
4. Reduce child mortality by two-thirds Current indicators: Under-five mortality Infant mortality Proportion of children immunised against measles	Cut by one-half the gap in infant and child mortality between the richest and poorest 20% Eliminate gender gaps in mortality Halve the mortality gap between urban and rural areas Halve the gap between the highest and lowest child/infant mortality rate by province is no more than X Progressively reduce gaps in mortality based on ethnicity, location, language and other markers for	Eliminate the gap in immunisation coverage between the richest 20% and poorest 20%, and between urban and rural areas Equalise the ratio of trained health workers, doctors and teachers to people between urban and real areas Provide universal access to basic health care that is free at the point of delivery Expand poverty-focused maternal care and child nutrition programmes Monitor and report

	disadvantage	annually on progress among low-income disadvantaged groups and regions
7. Halve the proportion of people without access to safe water and sanitation Current indicators: Proportion of people using a safe water source and basic sanitation	Halve the gap between the richest and poorest 20% in access to safe water and sanitation Halve the gap in access to safe water and sanitation between urban and rural areas Ensure that water accounts for no more than X% of household expenditure for the poor Every household has an entitlement to at least 20 litres of water as a basic entitlement	Sustainable and equitable financing strategies, with cross subsidisation for connection subsidies for poor households National strategies stipulating strategies for increasing access for poor households, slum dwellers and remote rural areas Strengthened integration of water and sanitation into Poverty Reduction Strategy Papers (PRSP)

Strengthening and renewing the goals – beyond primary education

Having access to a good quality education is a basic human right and an enabling condition for human development. Education is an imperative for people to be able to develop their capabilities and participate fully in society. Beyond its intrinsic importance, education is also a means to wider ends. The children of better education parents – especially mothers – are better nourished and less likely to suffer premature death. Education contributes to economic growth and rising productivity, with attendant benefits for poverty reduction. In an increasingly knowledge-based global economy, the distribution of educational opportunity also carries an increasing weight in framing the distribution of income and opportunity worldwide. Viewed from a different perspective, today's inequalities in education are tomorrow's disparities in income, health, nutrition, and other indicators for human progress. And while the transmission mechanisms are complex, education is also one of the foundations for democracy and human rights.

The MDGs provide a highly restrictive (and flawed) indicator for progress in education. Under Goal 2, the education target is defined in terms of universal primary education (UPE) – an indicator that is usually understood in terms of completion of a full primary cycle. Equity is addressed in Goal 3, which envisaged equal enrolment in primary school for girls and boys by 2005 and in secondary school by 2015. These targets, arithmetically implausible on adoption, will not be achieved. While universal enrolment and gender parity are necessary preconditions for progress, they provide an insufficient barometer of progress in education. Many important dimensions are missing. For example, early childhood development, secondary education, and adult literacy and lifelong-learning are conspicuous by their absence from the MDG framework, even though they are critical indicators for progress. The same is true of education quality and learning outcomes. And while gender inequalities are pervasive, insufficient concern has been directed towards wider disparities. One of the problems with MDG 2 is that it has encouraged donors and governments to focus on quantitative indicators at the primary level, leading to a compartmentalised approach that diverts attention from qualitative issues. The six indicators adopted under Education for All framework adopted by governments in 2000 provides a far more balanced, relevant, and meaningful perspective.

Measured against the MDG goals, there has been a great deal of progress. The number of out of school children is declining. Since 1999 alone, the number of children out of school has dropped from 96 million to 72 million, with a marked acceleration since 2002. The decline has been most dramatic in South and West Asia and sub-Saharan Africa. Gender disparities have been reduced, even though the gender parity target has been missed. Globally, the weighted average gross intake rate for girls rose from 91% to 94% of that for boys between 1999 and 2005. However, gender gaps remain very large across sub-Saharan Africa and South Asia in particular – and they are deeper in secondary and post-secondary education.

Even when measured against the minimalist requirements of the goals themselves, there is a very large unfinished agenda. There are still 17 countries in sub-Saharan Africa with net enrolment rates below 80% - and demographics will increase the primary school age population in the region by about one-fifth over the next decade. While many countries are progressing in enrolment, high levels of repetition and low-levels of completion remain a concern. The survival rate to the last grade of primary education is very low for a large group of countries, including many – such as Uganda, Mozambique, Rwanda and Burkina Faso – that have achieved progress in enrolment. Once again, there is a steep socio-economic gradient in progression through school, with children who are poor, female and rural dominating the drop-out lists. Achieving universal primary education in countries characterised by high levels of poverty, grave financing constraints, demographic pressure, HIV/AIDS and wider problems poses political challenges of a high order. While gender gaps may be shrinking, they remain very large across sub-Saharan Africa and South Asia in particular, becoming progressively deeper in secondary and post-secondary education. Roughly one-in-three out of school children live in fragile states and that share is rising over time. These are states characterised by weak institutional capacity, chronic financing constraints, and vulnerability to conflict.

Enhanced equity is an imperative for accelerated progress. At the start of the run-in to 2015, many countries face immense challenges even in terms of the narrow MDG targets. Achieving UPE will require a strengthened focus on the disadvantaged groups who are the last into school, the most likely to repeat grades, and the least likely to complete primary school. Reaching the last 10-20% of children out of school is difficult because of the extreme marginalisation and chronic poverty of their households. Retaining children in school, ensuring that they complete a full primary cycle, and acquire a decent education will require governments to address head-on deeply entrenched, and mutually reinforcing, inequalities based on gender, wealth, and location. Being poor is one significant marker for educational disadvantage. Being poor and rural multiplies the effect. Being poor, rural and female creates a triple burden – a burden illustrated by attainment profiles for many countries (Figure 3). As pointed out in a recent study, three-quarter of the girls out of school are also from disadvantaged ethnic and caste groups – and most are poor. Progress towards greater equity is seldom uniform. For example, Bangladesh has made rapid strides in increasing enrolment – to around 67% - and the country has already attained gender parity in primary and secondary school. However, the enrolment rate for children in the poorest quintile has increased modestly from 53% to 57%. The country is unlikely to achieve universal primary education and completion by 2015 without greater equity. While most countries have education plans with broad statements of intent to reach the poorest, many lack the bridge to the practical strategies and financing for overcoming disparities. This is unfortunate because many of the policies needed would also accelerate progress towards education for all.

Early childhood care and education

What happens before children enter school has a critical bearing on later cognitive development and learning outcomes. This is recognised in OECD countries where a wide range of programmes such as Head Start in the United States or Sure Start in the UK aim to alleviate the conditions that perpetuate cycles of disadvantage Pre-school interventions in developing countries are critical. One half of children in low income countries are malnourished at age 5. Malnutrition and ill-health early in life doom many children to cognitive deficits and low educational attainments. The consequences can be observed in school performance. Malnourished children start school later, they are more likely to repeat grades or drop out, and less likely to meet basic learning assessments. Iodine deficiency is estimated to rob some 3.5 million Ethiopian children of 15 IQ points, reducing their ability to learn and concentrate. Getting malnourished children into primary school is clearly not an indicator for success. In the absence of counter-veiling measures, the disadvantage that children bring with them into school reinforces inequalities in educational attainment and achievement.

Early childhood care and education can make a difference. Any strategy aimed at overcoming poverty and nutritional disadvantage in the school has to start when children are in the womb. As highlighted in a recent *Lancet* series, the age from 0-2 is a vital window of opportunity for creating learning potential. Yet this is an area in which governments and donors are failing, as witnessed by the slow progress towards the MDG target of halving malnutrition. Inadequate financing, weak targeting of vulnerable groups and poor health service delivery all play a part. Pre-school can play an important role breaking cycles of disadvantage. Well-timed and targeted intervention has the potential to create virtuous cycles of improved health and enhanced educational outcomes. This is what has happened under Mexico's Progressa programme and in less well-known programmes in the Philippines, Bolivia and Jamaica. Some of the more tangible results include enhanced test score for disadvantaged children, a reduced likelihood of drop out, and more years in school. Recent evidence from Cambodia illustrates the point. In this case children who have attended pre-school have a 61% probability of survival to grade six, compared to 51% for children without pre-school (falling to 49% for children in the poorest 40% of the population without pre-school).

International experience suggests that the children most in need of early childhood support are least likely to get it. Enrolment rates for early childhood education are rising slowly from a low base. Gross enrolment rates range from 14% in sub-Saharan Africa, to over 60% in Latin America. Expansion has been constrained by under-investment and acute shortages of trained teachers. An additional problem is the large disparity in enrolment between urban and rural areas and rich and poor. In Bolivia, for example, children from non-poor households are 50% more likely to be in pre-school than children from poor households. The large disparities in attendance at pre-school draw attention to the importance of distance, cost and wider pressures on poor households as barriers to good quality primary education.

The quality deficit

Progress in education quality is lagging behind quantitative progress to universal primary education. There are problems in cross-country comparisons of education attainment levels. Even so, such evidence as we have provides an insight into the scale of the deficit and some of the hidden dimensions of global education inequalities. Reading comprehension tests organised for 43 countries under the Programme for International Student Assessment (PISA) show about 15% of students in the OECD registering below level 1 (out of 5). The comparable figure for the Asian countries participating is 45%, rising to 54% for Latin America. In many countries, there may have been a trade-off between quantity and quality, with rapid increases in enrolment overwhelming the capacity of teachers, schools and education infrastructure to provide an acceptable level of education. Wider examples of the quality gap include:

- while Latin America is close to achieving the MDGs, the region's education performance indicators are exceedingly low. Among the 41 countries measured in the PISA reading exercise in 2000 Mexico, Argentina, Chile and Brazil ranked 34th, 35th and 36th and 37th respectively, with Peru ranked 41st. The same countries have the highest percentage of students below Level 1 (the lowest level) in mathematics. In the US, concern over scientific education performance relative to Japan has long been a source of concern. Yet the gap between Peruvian and US students is three times greater than the Japan-US gap. In Bolivia, national assessments record less than one-half of students attaining passing grade for reading, and less than one-third for maths;

- the PIRLS 2001 assessment found that in a large group of countries – including Morocco, the Republic of Iran and Colombia – over 40% of Grade 4 pupils read at or below the lowest level;

- in sub-Saharan Africa, learning assessments by SACMEQ reveal large shortfalls in quality. In Tanzania, one-quarter of 6th grade students were unable to meet minimum numeracy standards, and only one-in-five children achieved the desired competency level. In Malawi, the proportion of students meeting the desired level for literacy was less than 10% in the SACMEQ 11 round (2000-2002). More worrying still, this was one half of the proportion in SACMEQ 1 (1995-1998) – a finding that powerfully demonstrates how deteriorating quality can go hand-in-hand with increased access; and,

- research in India covering 300,000 primary schools found net enrolment rates of 90%, but two-thirds of children were unable to read a simple second-grade level paragraph.

Deficits in quality have important implications. The very low level of learning evident in many countries suggests that investments in education are yielding sub-optimal returns. For the children involved, poor education quality can have life-long consequences. One study looking at cross-country research for 40 countries demonstrated a strong link between earnings and cognitive skills. The same study found a close fit between the dispersion in adult literacy score and dispersion of income: in other words, higher levels of inequality in income were associated with higher levels of inequality in literacy. At a global level, qualitative gaps are harder to gauge than quantitative gaps measured in years of school, but they are almost certainly more important in shaping capacity to innovate and compete in an increasingly knowledge-based global economy.

Quality problems highlight challenges facing the education infrastructure. Within the school, physical infrastructure, class size, and the presence (or absence) of pedagogical inputs have a major bearing on learning outcomes. The SACMEQ research found that almost one half of schools needed major repairs and documented a 'normal' environment of overcrowded classrooms in which children often lacked textbooks, pens and paper. Fully one half of Grade 6 pupils in countries such as Malawi, Tanzania and Zambia reported not having a single book. The availability, quality and distribution of teachers are another part of the quality equation. As one recent review of teachers in fourteen low-income countries puts it, "Very sizeable proportions of primary school teachers, particularly in sub-Saharan Africa, have low levels of job satisfaction and are poorly motivated. Many tens of millions of children are, therefore, not being taught properly and not receiving even a minimally acceptable level of education." As pointed out in UNESCO's 2008 Global Monitoring Report, high levels of teacher absenteeism - one product of low morale, weak motivation, and poor accountability - reduces instructional time well below the benchmark for good practice (850-1000 hours per annum).

The poor quality of education has a direct bearing on the MDGs. Enrolment into schools that deliver bad quality education is not conducive to the MDG targets. But poor quality education also has the potential to slow or derail progress towards UPE. One reason for this is that poor quality schooling reduces the demand for education on the part of parents. Another is that it leads to high levels of repetition and drop-out, trapping education systems in a vicious circle of inefficiency and inequity. The inefficiency derives from the budget costs of repetition. On one estimate, repetition costs Latin America around $12bn annually – a huge inefficiency tax on education. The inequity derives from the fact that it is overwhelmingly the sons and daughters of the poor that drop out of school or repeat grades.

The transition to secondary school

Progress towards UPE has brought into sharp relief the importance of secondary school. Clearly, no country can expect to prosper, to lay the foundations for sustained human development, or to build an inclusive society, in the absence of universal primary education. By the same token, primary

education has to be viewed not as the destination but as a station *en route* to higher levels of learning and skills acquisition. There are at least four reasons to supplement the current MDGs with a commitment on secondary education. First, as countries progress towards universal primary education demand for secondary education will grow. Failure to respond to that demand is likely to encourage drop-out from primary school. Second, progress towards the MDGs will require a flow of graduates from primary into secondary school, and a reverse flow back from secondary to into primary school via teacher training. Third, under the right conditions secondary schooling is associated with wide-ranging human development dividends, including the empowerment of women, child health, and productivity. Fourth, competiveness in increasingly knowledge-intensive national and global economies depends on the education and skills associated with higher levels of learning, including post-secondary and tertiary education. To summarise, a focus on primary education to the near exclusion of other levels is likely to prove ill-advised and self-defeating.

There is a growing danger that secondary education will become the locus for deepening inequalities in life-chances. As more and more countries succeed in moving towards achievement of universal basic education, the transition to secondary school is becoming the locus for new disparities. On one estimate, there are 70 million children of secondary school age in sub-Saharan Africa who have no access to secondary school. Low rates of transition from primary to secondary are reinforced by low rates of transition from lower secondary to upper secondary, with the gross enrolment rate (GER) for 2005 falling from 38% to 24%. The children who do not make it to secondary school are overwhelmingly poor, rural and, in many countries, female. As one commentator puts it, "Poverty reduction, predicated on higher levels of knowledge, skill and intergenerational mobility, requires the democratisation of access to secondary schooling." That injunction applies beyond sub-Saharan Africa (Figure 4). Across much of the developing world, the chances of making the transition from primary to secondary education are positively correlated with socio-economic status. In Latin America, inequalities in the secondary school system are reinforcing wider socio-economic disparities. For example, while 88% of children from the richest decile move steadily through the secondary system without repetition, for the poorest decile that share drops to 44%. Strengthening the transition from primary to secondary is a step towards mitigating wider global inequalities in education, including those at the tertiary level. In 2005, the GER for tertiary education ranged from 66% for developed countries, to 5% for sub-Saharan Africa and 10% for South Asia. To put the statistical comparison in context, children in developed countries currently have a better chance of enrolling in tertiary education than children in much of sub-Saharan Africa have of completing primary education.

Literacy and lifelong learning

Literacy is a basic tool for making informed decisions and participating in society. While illiteracy rates are falling, there are still some 764 million people in developing countries living without basic literacy skills. There is a

sense in which illiteracy today is the product of past failures in education. The backlog is being cleared at a slow pace. While there are serious problems with measurement and data, the adult literacy rate in developing countries rose from 68% to 77% between the periods 1985-1994 and 1995-2004. Far more could be done. Many countries – Yemen, Nepal, Malawi and Burundi among them – have increased adult literacy rates by more than fifteen percentage points. Progress at a global level will depend critically on developments in the 15 countries that account for three-quarters of adult illiteracy around the world. Notwithstanding the immense importance of literacy to the empowerment of people and the opening-up of opportunities for lifelong learning, the current MDG framework does not include a literacy goal.

Redesigning the MDGs on education

The MDGs are not detailed policy prescriptions or strategies. Their value is in signalling priorities and in focussing attention on shared concerns. It would be unrealistic to recast the MDGs into multiple micro-level sector targets and goals. By the same token, goals that provide a highly restrictive or distorted vision will inevitably become less relevant as a catalyst for action. Perhaps more than in any other area, the education MDGs are out-of-touch with the aspirations of children and parents, and are in urgent need of renovation.

There are important lessons to be derived from the Education for All agenda, which is discussed below. This enshrines six broad thematic goals, some of which – on EUP and gender equity – overlap with the MDGs. The goals themselves are viewed as indivisible – and for good reason. Sustain progress in any one area is contingent on progress in other areas. For example, Early Childhood Care and Education (ECCE) matters in its own right because it address child health and nutrition concerns, as well as pre-school cognitive development. But ECCE also matters because it is one of the foundations for UPE. To state the obvious, achieving universal enrolment when a large section of the child population is hungry, sick, disadvantaged by poverty and lacking the social and cognitive skills needed to realise their potential is not a good benchmark for progress. Similarly, adult literacy – another key EFA goal – matters for both intrinsic and instrumental reasons. It matters for intrinsic reasons because it empowers women, expands choice, and supports democracy. And it matters for instrumental reasons because literate mothers are more likely to send their children – especially girl children – to school. The EFA framework also places a premium on the quality of the learning experience. It is this dynamic synergy between different parts of the education and learning spectrum that the MDG framework misses. Implicit in the framework is the view of primary school as a bubble that is somehow separated from other parts of the education system, and loosely connected to gender equity.

The starting point should be the wider range of goals agreed in the Education for All (EFA) Conference in Dakar, Senegal in 2000. The six EFA goals are far broader than the MDGs, extending to education quality, adult literacy, and post-primary education. They are based on the 'Dakar

Framework for Action', which declared that by 2015, all children of primary-school age would participate in free schooling of acceptable quality, that adult illiteracy would be halved, that progress would be made in providing early childhood care and education, and that learning opportunities for youth and adults and all aspects of education quality would be improved. One of these Dakar goals also committed the nations of the world to achieving gender equality in education by 2015, with a focus on ensuring girls' full and equal access to a good quality education. This goes beyond the narrower goal of gender parity to take into account teacher attitudes, violence against girls and wider indicators.

The MDG framework would be strengthened and made more relevant through creative alignment with the EFA goals. One obvious danger is that of overload and dilution: the MDGs have force partly *because* they are limited. However, it is possible to envisage the incorporation of a small number of quantified goals and targets into the MDGs. Five areas suggest themselves:

- **monitor performance for enhanced equity.** In both the MDG and the EFA reporting processes, governments report on average outcomes. Reporting on disparities and the rate of progress in the achievements of disadvantage groups, would play the dual role of informing policy design and drawing attention to the inequalities in opportunity that are holding back progress. As indicated in the previous section, global targets could be agreed for reducing disparities based on socio-economic status, location, race and ethnicity, as well as gender;

- **focus on early childhood and pre-school.** The MDGs should enshrine clear targets for enhancing the opportunities and cognitive development of children aged 0-8 years. The ambition: to work towards a situation where no child enters school carrying the burden of avoidable health and nutrition problems, and where all children have an opportunity to develop their cognitive and wider learning skills in pre-school. One possible target for 2015 is a threshold of at least 50% enrolment in pre-school, with countries above this threshold aiming to halve the share of children not enrolled;

- **the transition to secondary school.** The sequencing of targets is important. Progress in secondary education is contingent on the rate of enrolment, retention and completion at a primary level, and on the recruitment and training of teachers. An MDG in this area could take the form of a commitment to increase lower-secondary enrolment to at least 50% by 2015, with a target of universal secondary education by 2020. Once again, for countries above the threshold the target could be calibrated in terms of halving secondary enrolment deficits by 2015;

- **introducing a quality indicator.** UNESCO's *EFA Global Monitoring Report* has set out in some detail the type of policies that can raise education quality. Experience from several countries also demonstrates that it is possible simultaneously to raise quality and expand access. However, there are serious difficulties in assessing international

progress in this area. One reason for this is that many international comparison exercises have been developed for rich countries. If education quality is an important aspect of progress, then we need an internationally normed tool against which we can benchmark progress. Creating a valid measure that can be used to track progress over time should be seen as a priority, supplementing and building on the wide-ranging national and regional programmes now in operation. More immediately, the MDGs could incorporate a proxy indicator for quality, such as instructional time of 850-1,000 hours a year; and,

- **targeting an adult literacy goal**. The MDGs could incorporate the EFA goal of achieving a 50% improvement in adult literacy by 2015, with a focus on accelerated progress to gender equity, and equitable access to basic and continuing education for all adults.

Translating revised goals into tangible outcomes will require strengthened international cooperation. The MDGs have been more meaningful in some areas than others because they have backed targets with practical strategies. Goals without strategies are not a force for change. This is not the place to enter into a wide-ranging policy discussion of what might be involved. However, it is worth signalling some priorities.

Donors are not delivering against their commitments and will need to do more. UNESCO's *Global Monitoring Report* estimates that around $11 billion annually is required from donors to achieve the internationally agreed EFA commitments. This figure breaks down into around $9bn for UPE and $1bn each for early childhood and literacy. Of course, estimates in the last two areas are tentative. However, what is clear is that current donor disbursements are insufficient. These are running at around $3 billion a year. If the targets are to be reached the aid financing gap has to be closed. There are several problems to be addressed. Some major donors – notably the US – just provide too little aid. That is unfortunate, not least because USAID has a strong education programme and a strong commitment within that programme to primary education. Other donors perform much better on overall aid levels and have a strong commitment to education in general, but a weak commitment to basic education. Both France and Germany are cases in point because of the very large – some would say excessive – share of education spending directed towards bringing university students to Europe. It is to be hoped that the Anglo-French commitment to get 8 million African children in primary school by 2010 will lead to an increased investment in basic education. Within the donor community, the Netherlands and the UK stand out because they have backed a strong political commitment to education with real resources. With the 2006 announcement of a $15 billion commitment to education over the next 10 years, the UK has provided an important boost to cooperation in education. The Fast Track Initiative (FTI) launched in 2002 is also expanding. At the end of 2006, pledges totalled $1.1 billion. Next year, the FTI's Catalytic Fund could amount to as much as 10-15% of total aid to education for low-income countries. However, large financing gaps remain especially if expanded commitments to secondary education are factored in.

According to one detailed analysis, the additional costs associated with achieving universal primary education amount to around 3% of regional GDP.

The structure of aid flows also matters. There are two distinctive features of education financing that have to be considered. First, recurrent costs, rather than capital investment, account for the bulk of the financing deficit. Second, there is a premium on long-term predictability. Meeting education goals such as those outlined above requires a long-term planning horizon, not least to ensure that the education system itself generates a flow of trained teachers. Sub-Saharan Africa alone will require an additional 1.6 million primary school teachers just to achieve UPE. An expanded MDG framework with commitments on pre-school, secondary education, and enhanced quality will require scaled-up investments in teachers, which will in turn require long-term commitments.

New priorities will have to be taken up in early childhood development, adult literacy and education quality. Accelerated progress towards enrolment in good quality pre-school for the most disadvantaged groups would yield wide-ranging benefits in education, health, nutrition, and in breaking cycles of disadvantage. What is needed is an international Head Start programme for the world's most vulnerable children. Progress in this area will require not just long-term financing commitments, but also the development of institutional capacity and teacher-training. Similar concerns arise in the context of education quality. There is a legitimate concern on the part of developing countries that international assessment exercises should be relevant, appropriate, and applied in ways that strengthen national understanding. Developing appropriate assessment instruments has to be a partnership exercise. That exercise also has to build capacity not just to conduct assessments, but to institutionalise the use of assessment exercises in policy design and evaluation. Donors and national governments alike have a shared interest in understanding what works – and donors should prioritise this area in future dialogue.

Strengthening the focus on fragile states is a priority. Fragile states represent an enormous challenge. Progress in education is a requirement for overcoming fragility, strengthening democracy, and building peace. The problem is that many fragile states lack the public financing and management systems, the poverty reduction strategies, and the education sector plans used by donors to signal a commitment to the MDGs. The consequence is that most fail the eligibility requirements for long-term donor financing commitments. The Inter-agency Network on Education in Emergencies (INEE) has developed a range of innovative strategies and standards aimed at addressing this problem. The multi-donor trust fund in Afghanistan is an example. However, attempts to develop a more systemic institutional response have not yet gone beyond the pilot project phase, and emergency and development aid are too often managed as separate operations. What is needed is a more streamlined approach. Governments in fragile states seeking to rebuild their societies and expand educational opportunities need development partners with a long-term commitment to building capacity, providing predictable aid flows, and delivering the up-front investments on the

scale required. None of this is to understate the importance of recipient accountability and transparency, especially in relation to their citizens. But human development *realpolitik* demands that donors look beyond ad hoc approaches to the systemic response required to address the special circumstances of fragile states.

Looking to the future – climate change and development

Climate change confronts the international community with a distinctive set of challenges. It is now widely recognised that global warming is not an issue for the distant future. The impacts of higher temperatures, more variable precipitation, more extreme weather events, and sea level rises are already being felt. High levels of uncertainty in climate modelling makes attribution a hazardous exercise. What is clear is that the risks and vulnerabilities that come with climate change will be heavily skewed towards the world's poorest people. Heavily dependent on agriculture, and living in flood-prone coastal areas, drought-prone semi-arid regions, or on hillsides and slums exposed to extreme storms and floods, the world's poor stand on the climate change front-line.

The links between climate change and the MDGs have not been sufficiently thought through. Climate change is already influencing the rate of the progress towards the MDGs. That influence will grow over time. Deep mitigation of greenhouse gas emissions is crucial if the worst effects of climate change are to be avoided in the 21st Century. However, even with mitigation, climate system inertia means that we are locked into a pre-determined global warming trajectory for the next three decades. As argued in detail in the 2007 *Human Development Report* there is today a real and present danger that climate change will first slow, then stall and then reverse the advances achieved under the MDGs. Across the developed world, governments are putting in place strategies aimed at climate-proofing their societies from emerging risks. Private insurance companies are developing innovative strategies to climate proof their assets and liabilities. We need equally innovative strategies for climate proofing MDG achievements in the post-2015 world creating the conditions for sustained progress.

The basic carbon arithmetic driving climate change is well-known but bears repetition. There is a broad consensus that a threshold of 2° C should be viewed as a target for avoiding dangerous climate change. While there is a high level of uncertainty in the modelling, having a 50:50 chance of staying below that threshold will require stabilisation of $CO_{2\,e}$ concentrations at a level no higher than 450 parts per million (ppm) (they are now around 380ppm). Achieving this target will require a cut in global emissions of at least 50% by 2050, or from 7 tonnes of CO_2 per capita to 2-3 tonnes. The bad news is that the emissions curve is heading North instead of South. According to the International Energy Agency, energy-related CO_2 emissions alone will double by 2030. We are on track for greenhouse gas concentration levels in excess of 550 ppm before mid-century on a rising trend. As one climate model has demonstrated, we are set to use the entire sustainable carbon budget for the 21st Century by the mid-2030s, in effect running up a large, unpayable carbon debt for future generations. If we continue on our current course, we are more likely to breach a 5° C climate change threshold by the end of the 21st Century than to stay within 2°C.

Responding to climate change will require new approaches to international cooperation in mitigation and adaptation. The twin challenge

posed by climate change is easy to summarise. As a global community we have to mitigate the impacts that are still avoidable and adapt to those that are not. Moving from description to action is more difficult. Successful mitigation will require a transformation in energy policy and unprecedented levels of cooperation on technology transfer. Adaptation will require the mobilisation of new resources for investment in climate risk management under conditions of great uncertainty. In both areas, we lack the multilateral institutional frameworks needed to address the challenge. Developing those frameworks is a priority because of the urgency of the problem: there is no rapid rewind button for eliminating greenhouse gas stocks.

Mitigation commitments should be brought into the MDG framework for international cooperation (Goal 8). The post-2012 Kyoto agreement has to set a target for emission reductions commensurate with the scale of the challenge. This means cuts of 80-90% in rich countries by 2050. Equity demands that developed countries act as first movers because of their historic responsibilities and technological capabilities. However, even with these reductions, developing countries will also have to bend their emissions curve downwards, taking on mitigation commitments from 2020. The mitigation agenda poses a daunting challenge and huge opportunities. Emissions trading, carbon finance and technology transfer form the three legs for a strategy that could combine mitigation with enhanced access to affordable, low-carbon energy in developing countries.

There is an important link between mitigation and development agenda. Inadequate access to basic energy services is undermining human welfare, holding back, and obstructing poverty reduction efforts. There are over 2 billion people whose access to energy depends not on the flick of a switch, but on long walks to collect firewood. Many developing countries confront the twin policy imperative of meeting current energy needs and expanding access. An obvious danger from a climate change mitigation perspective is that increased energy use in developing countries will undermine any prospect of a sustainable climate. Developing countries as a group will account for over 80% of the projected increase in energy use to 2030, with coal demand set to increase by a factor of three in the first half of the century. On current investment patterns, most countries are expanding energy supply through a carbon-intensive infrastructure that will lock the world into global warming. Set against this bleak scenario, there are some very real opportunities. Using finance and technology transfer to raise average efficiency levels in India or Chinese coal plants to OECD standards would cut emissions by around one-third. Outside of the coal sector, renewable energy and the early adaptation of breakthrough technologies for achieving zero-emissions from coal could redefine what is possible in terms of early mitigation.

Making a transition from project-based to programme-based financing is critical. Carbon markets are expanding. The EU's Emissions Trading Scheme is currently operating at around $25 billion annually. Project-based transactions through the Kyoto Protocol's Clean Development Mechanism (CDM) reached around $5 billion in 2005, with developing countries supplying 450 million tonnes of carbon equivalent credits. There are two problems with

building on the current model. First, mitigation credits are dominated by a small group of large emitters such as China, India, Brazil and Mexico. Sub-Saharan Africa accounts for just 1-2% of CDM credits. Second, the CDM model comes with high transaction costs because it is project based. There is an urgent need to move towards programme level finance for entire energy sectors, linking carbon finance to private sector investment under a model that benchmarks reductions for entire energy sectors. Instead of focussing on plant-level emission curves, the aims should be to link low-carbon financing to the task of cutting national emissions through support for greater energy efficiency and renewable energy.

As carbon markets deepen and broaden, there is a potential to rapidly expand the flow of carbon finance and technology transfer. By covering the incremental cost of moving on to a lower carbon trajectory, rich countries can contribute to the creation of a global public good (namely, a more secure climate through efficient mitigation) and the development of low-carbon energy systems. However, at present there is a gap in the aid and finance architecture. Carbon markets have the potential to generate large flows of revenue. It is important for countries to cooperate in regulating that market to (i) ensure that emissions trading produce genuine emission reductions, which has not always been the case to date and (ii) to broaden the distribution of benefits. Measures are needed to ensure that the poorest countries in sub-Saharan Africa and elsewhere have access to carbon-finance resources for the development of hydropower and renewable energy. More broadly, we need a global plan of action of low carbon finance and technology transfer. Financing will be required on more concessional rates than those current applied by multilateral development banks, with different blends of finance (concessional, grant, risk guarantee and so on) applied to different countries. The 2007 Human Development Report suggested an annual ball-park financing figure of around $20 billion, with the World Bank managing the subsidy component of investments under a revised governance structure. The Clean Technology Fund, one of the World Bank's Climate Investment Funds, could be adapted to this purpose.

Adaptation has received insufficient attention as an MDG issue and insufficient financing. The case for international cooperation on adaptation is rooted in principles of social justice, legal redress, and human rights. As Oxfam has pointed out, the International Covenant on Economic, Social and Cultural Rights includes the following injunction: "In no case may a people be deprived of its own means of subsistence." The actions of rich nations clearly violate that injunction. Beyond broad principle, the case for adaptation is rooted in the same commitments that shaped the MDGs themselves. The multilateral response has been desperately slow. While developed countries are investing heavily in climate-proofing, only around $20-30 million in total has been mobilised for climate change adaptation over the past three years. This is a tiny fraction of what many OECD countries spend on flood defence in a month.

The focus for adaptation should be on climate-risk management. There is sometimes a tendency to focus on the catastrophic aspects of climate change

risks. Without downplaying the potential for long-term ecological catastrophe, this has diverted attention from near-term incremental risk facing the poor: when you are close to the edge, it doesn't take a big push for you to go over. There are still 2.1 billion people in rural areas living on less than $2 a day, and 880 million on less than $1 a day. Most of these people will not have to await 'catastrophic' climate change events to push them over the edge. The threat for them is a gradual ratcheting-up of risk and uncertainty in an environment marked by acute vulnerability and limited coping capacities. Climate projections provide an insight into the broad shifts in systemic risk in agriculture. One study points to a loss of 9% in the developing world's agricultural production potential, rising to 16% for sub-Saharan Africa. For basic food staples such as maize in southern Africa, the productivity impacts are far stronger, with estimates for decline ranging from 14%-50%.

Part of the adaptation challenge is to prevent the conversion of short-term climate shocks into long-term vulnerability. The 2008 *Human Development Report* explored this theme by drawing on micro-level household data. It looked at the impact of drought by comparing the nutritional status of children aged 5 born in a drought district in a drought year, with the status of children not born during a drought. The findings are instructive. In Ethiopia, children born during a drought year were 36% more likely to be malnourished at age five. Put differently, around 2 million children were malnourished because their parents had been unable to cope with a single drought event. Findings for Kenya were of a similar order of magnitude. As these studies demonstrate, short-term climate shocks have the potential to set in train long-run cycles of disadvantage that destroy potential and lock people in poverty. When households are forced to cope with events such as droughts by cutting nutrition, reducing health spending, taking children out of school, or selling off their productive assets, they are often heading on a one-way journey into lifelong poverty.

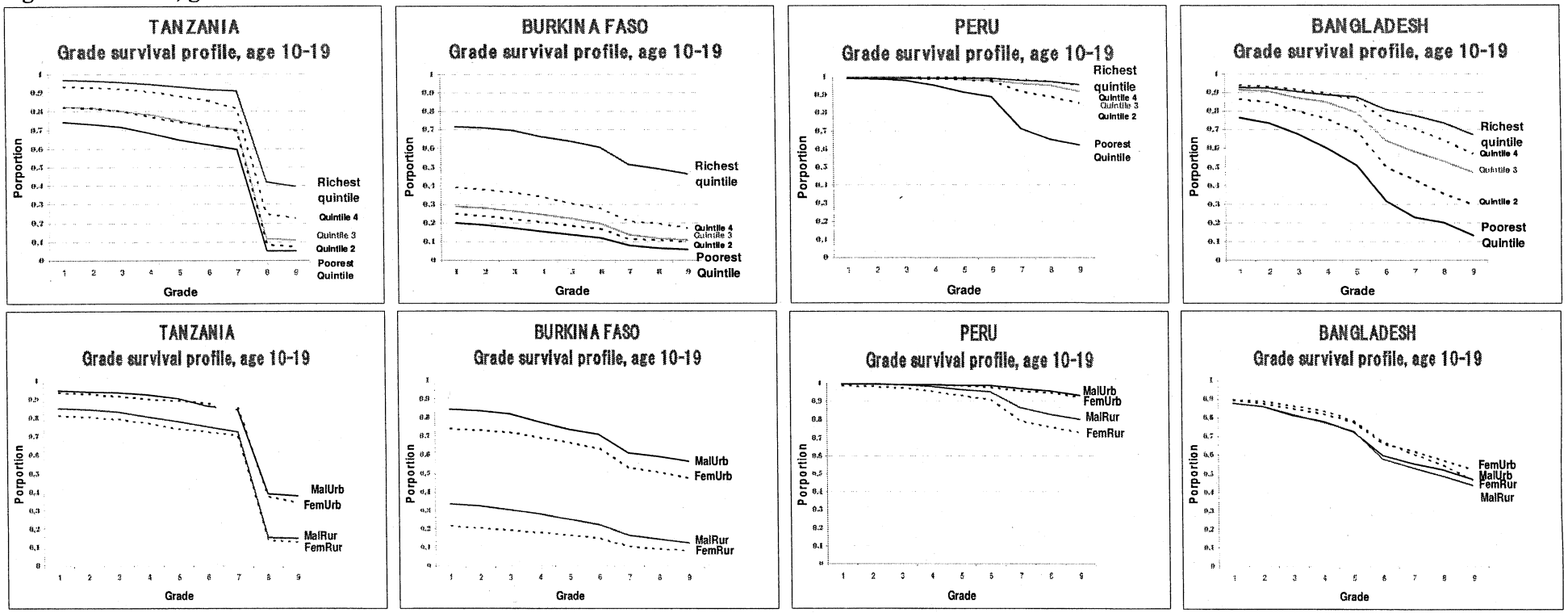
Counteracting these threats requires wide ranging policies encompassing the creation of social safety nets to protect assets during periods of stress – the Productive Safety Net Programme in Ethiopia is an example – health and nutrition interventions, and increased investment in small-scale water harvesting.

Mobilising resources and creating a governance structure that gives poor countries and vulnerable people a voice is an immediate priority. Calculations set out in the 2007 *Human Development Report* estimate the additional costs of adaptation financing at around $80 billion. While the headline figure is large, this represent only around 0.2% of rich country GDP in 2015. Additional financing is just one part of the equation. Donors have repeatedly stressed their commitment to increased coordination, harmonisation, country ownership, and reduced transaction costs in aid. What has happened in adaptation financing does not conform to this commitment. At the Bali climate change summit in 2007, an important agreement was reached on the enactment of the Adaptation Fund based on a CDM levy under the UNFCCC framework. Governance structures were agreed that give developing countries a greater voice on the Adaptation Fund Board than they have previously enjoyed in the management of adaptation funds under the

auspices of the Global Environment Facility (GEF), which was widely viewed as unresponsive. Subsequently, the World Bank has created an Adaptation Pilot Fund with a target size of $1 billion.

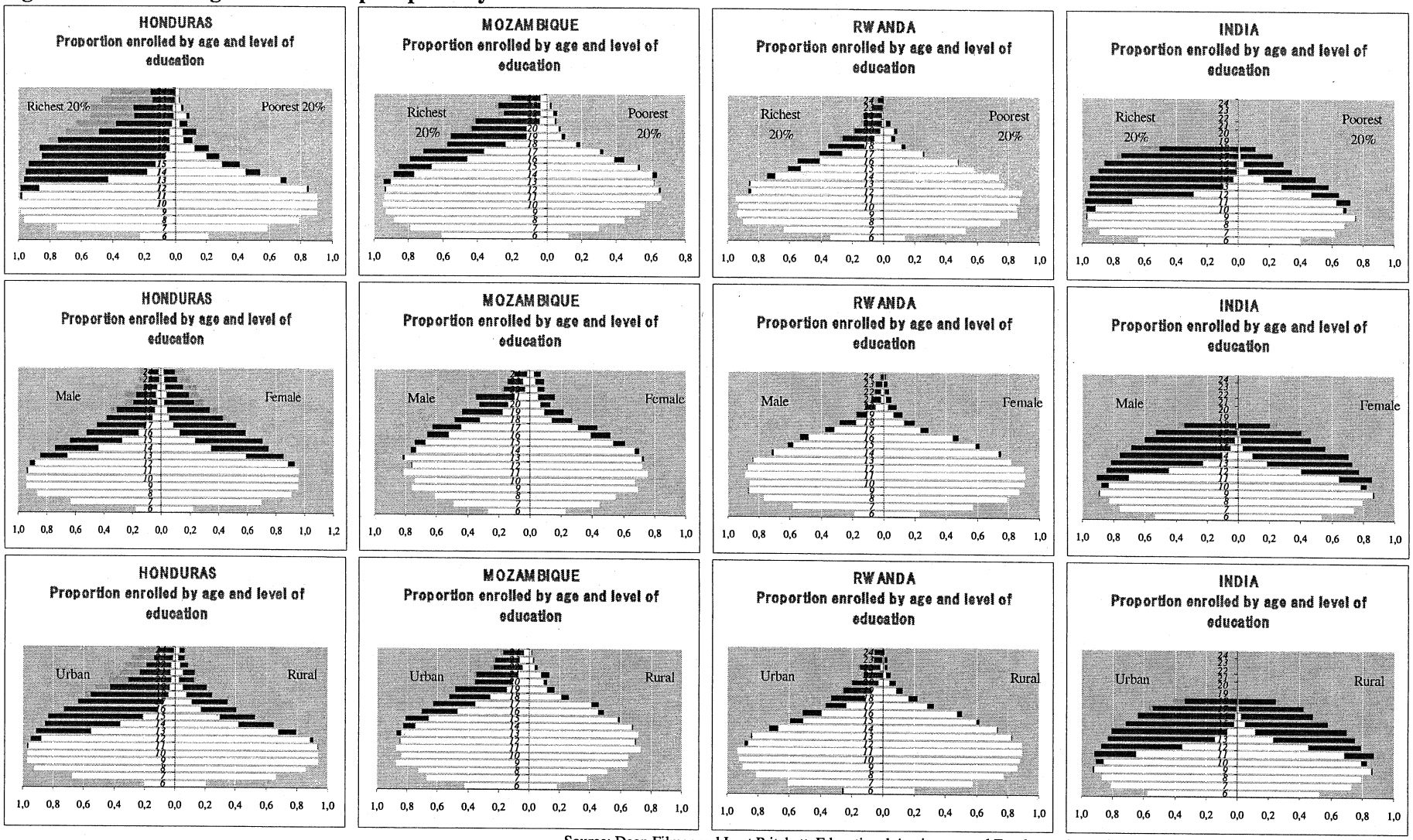
There are three fundamental problems with the current framework. First, there is no obvious rationale for two overlapping facilities with almost identical remits: this is a prescription for duplication. Second, developing countries have a stronger voice in the management of the UNFCCC Adaptation Fund. Third, it is not clear that the creation of vertical and horizontal funds is appropriate for the task in hand. Given the large uncertainties, the difficulties entailed in identifying incremental risk, and the systemic nature of the risk itself, there is a strong case for integrating adaptation into Poverty Reduction Strategy Papers and existing country strategies by scaling-up climate risk management interventions.

Figure 3: Wealth, gender and location influence education survival



Source: Deon Filmer and Lant Pritchett, Educational Attainment and Enrolment Around the World, WB, 2007

Figure 4: Disadvantages increase at post-primary levels.



Source: Deon Filmer and Lant Pritchett, Educational Attainment and Enrolment Around the World, WB, 2007