

Educating out of Poverty? A Synthesis Report on Ghana, India, Kenya, Rwanda, Tanzania and South Africa

*by Robert Palmer, Ruth Wedgwood and Rachel Hayman
with Kenneth King and Neil Thin*

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2007

Centre of African Studies, University of Edinburgh

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The Research Team

For full details on the country and overview studies please see the appendix.

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Preface and Acknowledgements

This Research Monograph is one of the final outcomes of a process of collaborative research conducted with the support of the Department for International Development (DFID) over the period from April 2004 to May 2006. A strong concern over the two year period has been with the dissemination of our findings into different research and policy constituencies, both in the North and the South. The researchers were anxious to ensure that this activity of engagement with end-users took place throughout the whole period, and was not something that only happened once the project was finished.

Thus, a first outcome of the research was the organisation of a special panel on our research theme in the Annual Conference of the Development Studies Association, just seven months after the work had started. This panel provided a first translation of our initial research into a policy audience, since the other members of the panel included Desmond Bermingham of DFID, and Kevin Watkins, Editor of the *Human Development Report*. This first paper was published, in 2005, in a special issue of the *Journal of International Development*, supported by DFID, appropriately entitled 'Bridging Research and Policy', and also appeared in a book of similar title edited by Court and Maxwell (2006).

The six country studies were all completed in near to final draft by March 2005. It was possible for them all to be available as background papers, by the time of the Centre of African Studies' (CAS) International Conference in Edinburgh in April 2005. This CAS Conference was itself deliberately oriented around the key themes of the DFID project, and hence the published volume from the CAS conference, *Revisiting Education, Training and Work in Africa* (CAS, October 2005) set the DFID research on five African countries within a larger African context. Immediately after the CAS conference, there was an interaction with high level policy makers from Ghana, Kenya, Tanzania and India, in order to get early feedback on the research from these senior members of the policy community.

Over the summer of 2005, the lengthy, individual country studies were versioned into academic papers for what was a crucial panel of the UKFIET's Oxford International Conference on Education and Development that September. This panel was entitled 'Educating and Training out of Poverty', and thus was organised in large part around our DFID research theme. It attracted much interest from researchers and policy makers, and the panel eventually had some 20 papers addressing similar issues to our own. By good fortune, all the DFID country studies that were presented in Oxford were also accepted by the *International Journal of Educational Development*; which means that during 2007, the DFID country studies will be available in one of the most widely circulated comparative education journals, worldwide.¹

Conscious that most policy makers whether in agencies or in our six selected countries do not have the time to read lengthy country studies or academic papers, we versioned our country studies into short, sharp Policy Briefs. These are on our website (<http://www.cas.ed.ac.uk/research/projects.html>) along with the country studies and the academic versions of the papers. But packages containing the Policy Briefs, the Executive Summaries of our country studies and the country studies themselves have been sent to carefully selected policy makers in each of our research countries. There has been a very positive feedback from this process. The same package was also sent to the DFID advisors' meeting in Nairobi in early 2006.

It also proved possible for our DFID research to be fed into the main donor agencies concerned with the relationship of skills and poverty reduction. Both in the Working Group for International Cooperation in Skills Development and in the European Training Foundation in November and December of 2005 respectively, major presentations on Skills and Poverty Reduction were made at these agency meetings in Italy. While a little earlier in the year, the results of our DFID work were also presented to a meeting of all of USAID's education advisors in Washington.

The summaries of our six country studies along with many other articles on the Education-Poverty Reduction relationship have been a key element in the Aid Policy Bulletin, *NORRAG NEWS NO. 37*, which was published in May 2006. The theme of this special issue was 'Educating out of Poverty? A status report'. This Bulletin goes to over 1200 individuals in academia, NGOs and in policy circles around the world. No less than 40% of the readership is in the developing world. A further opportunity to present the results of the research was in the biennial conference of the African Studies Association of the UK in SOAS in September 2006.

The present monograph, and the accompanying summary which goes into the id21 process, constitute the final outcome of this two year research. Here, our purpose has been to look across the six country contexts and synthesise some of the common lessons learnt and policy challenges met in the research process.

We would thank colleagues in DFID, and especially Desmond Bermingham and David Levesque, for the interest they have shown in the research, and for their readiness to participate in the several different panels, conferences and feedback sessions on the research as it went through these several stages. DFID, however, is not responsible for the views expressed here or in the many other outputs of the research; these remain the responsibility of the research team.

We would also want to acknowledge our colleagues in the six countries, whether in government, in NGOs, or in academia, who have given their time to discussing these research issues with us. We would also want to thank them for giving us the opportunity on a number of occasions to feed back our findings to them.

Finally, the Edinburgh team, which has taken responsibility for the synthesising of this final report, would like to acknowledge the other members of the team outside Edinburgh, who have been our research partners over these two years. These are Salim Akoojee (in Pretoria) and Simon McGrath (formerly Pretoria, now Nottingham) who are the authors of the South Africa country study, and Jandhyala Tilak (in New Delhi) who has been responsible for the India country paper as well as a general review of the role of post-basic education in poverty reduction and development.

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¹ See *International Journal of Educational Development* 27/4 (2007) Special issue: Beyond Basic Education and towards an Expanded Vision of Education for Poverty Reduction and Growth? (A full list of the papers in IJED are in the Appendix of this report).

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Acronyms and Abbreviations

AAU	<i>Association of African Universities</i>
DFID	<i>Department for International Development</i>
EEA	<i>Education for All</i>
ESSP	<i>Education Sector Support Project</i>
ESSU	<i>Education Sector Strategy Update</i>
GDP	<i>Gross Domestic Product</i>
GER	<i>Gross Enrolment Ratio</i>
GoI	<i>Government of India</i>
GoG	<i>Government of Ghana</i>
GoK	<i>Government of Kenya</i>
GoR	<i>Government of Rwanda</i>
GoRSA	<i>Government of the Republic of South Africa</i>
GoURT	<i>Government of the United Republic of Tanzania</i>
HDI	<i>Human Development Index</i>
HIPC	<i>Heavily Indebted Poor Country</i>
HPI	<i>Human Poverty Index</i>
ICCES	<i>Integrated Community Centres for Employable Skills</i>
ICT	<i>Information and Communications Technology</i>
ILO	<i>International Labour Organisation</i>
MDG	<i>Millennium Development Goal</i>
MSE	<i>Micro- and Small-Enterprise</i>
NER	<i>Net Enrolment Ratio</i>
NFET	<i>Non-Formal Education and Training</i>
NGO	<i>Non-governmental Organisation</i>
PBET	<i>Post-basic education and training</i>
PPA	<i>Participatory Poverty Appraisal</i>
PRSP	<i>Poverty Reduction Strategy Paper</i>
RORE	<i>Rate of Return to Education</i>
SIDA/Sida	<i>Swedish International Development Cooperation Agency</i>
SME	<i>Small and Medium Enterprise</i>
SSA	<i>Sub-Saharan Africa</i>
STEP	<i>Skills Training and Entrepreneurship Programme</i>
TIVET	<i>Technical, Industrial, Vocational and Entrepreneurship Training (Kenya)</i>
TVET	<i>Technical and Vocational Education and Training</i>
UNESCO	<i>United Nations Educational, Scientific and Cultural Organisation</i>
UPE	<i>Universal Primary Education</i>
USAID	<i>United States Agency for International Development</i>
VETA	<i>Vocational Education and Training Authority (Tanzania)</i>

Executive Summary

1. Background to the research

This research project has explored the ways in which both the achievement and the developmental impact of the goal of Universal Primary Education (UPE) rely on strengthening of systems for post-basic education and training (PBET). Reviewing the relevant policies, institutions, and experience in six countries (India, Ghana, Rwanda, Kenya, South Africa, Tanzania), we have sought policy-relevant lessons concerning the ways in which the poverty-reducing benefits of basic education depend on PBET's contributions to an enabling environment in two broad ways:

- a *delivery context* in which basic education can flourish (essentially a question of the quality and sustainability of educational provision across the whole education sector);
- a *transformative context* which facilitates translation from basic and post-basic education into developmental outcomes (essentially a question of the developmental value of education for individuals and for society in general).

Obvious though these interdependencies may seem, our starting-point is the problematic lack of reference to PBET in the Millennium Development Goals (MDGs), and the related trends among some international donors and country strategies towards an under-emphasis on PBET in development policy and even in budgetary provision, and towards an over-emphasis on the importance of rapid progress towards achieving UPE regardless of its sustainability and outcomes. We also identify as a critical problem the naïve use of research knowledge to support unwarranted assumptions about simple translations from primary educational inputs to developmental outcomes. Our aim is therefore to promote more sophisticated and holistic use of research in developing and implementing policies for education and poverty reduction.

2. Linking education, skills and context

In **Chapter 2** we present our framework for the analysis of the links between education, skills training and poverty reduction. This framework highlights the indirect role that post-basic education and training may have in ensuring that the potential benefits of basic education are realised, through supporting the delivery context and the transformative context. We explore the importance and the nature of the transformative context using the example of the 'farmer education fallacy'. The link between farmer education and productivity is widely accepted, but less attention is given to the fact that this link only works when people can apply knowledge and skills to improve agricultural systems in flexible ways. The slogan that 'four years of education increases agricultural productivity' hides the complexity of this relationship and implicitly denies the importance of the transformative context. In reality, education makes little difference to agricultural productivity in contexts that are not favourable to agricultural innovation.

More broadly, we explore the multiple meanings of poverty and poverty reduction in order to help clarify what might be understood by educational contributions to poverty reduction. Since poverty is multidimensional, the assessment of education/training impacts on income alone will not be satisfactory. Further, since educational impacts are achieved via complex social processes and not just through the 'human development' improvements in individuals' skills, claims that

educational policies and systems are targeting the poor or are ‘pro-poor’ tell us little about their comparative value in combating poverty. Long-term poverty reduction strategies require a mix of targeted pro-poor educational provision plus general improvements in education for all.

3. Poverty, skills and development

Chapter 3 delves further into the definitions and interpretations of poverty, and related concepts such as vulnerability and inequality, that are actually deployed in practice in the six study countries. It explores the ways in which national and international policies and strategies interact to produce theories of how education and training might contribute to poverty reduction and development in specific contexts. In some countries, notably Rwanda and Ghana, there are clear signs of tension between the competing views of international donors and national governments on optimal approaches to education and poverty reduction.

We review the common patterns in the incidence of poverty in the countries studied, as well as the diversity of the historical factors that have caused it. A key picture emerging is the necessity of trade-offs between strategies for trying to reduce poverty relatively directly by targeting poor people in poor areas, and trying to reduce it via more complex indirect mechanisms involving ‘pro-poor’ economic growth or more inclusive economic growth strategies. India, Kenya, and Tanzania are shown to have long histories of close policy attention to education and poverty reduction in national development strategies, without any clear evidence of consequent achievements in poverty reduction.

Despite a growing global consensus on the multidimensionality of poverty and on the complexities of poverty reduction, in policy and practice there is a tendency to categorise poverty simplistically in terms of the minimum income required to satisfy basic needs, and consequently to see poverty reduction largely in terms of enabling poor people to improve their income. We also note the gulf between theoretical poverty concepts current among international and national-level policy-makers, and the ways in which ordinary people think about poverty.

4. Research evidence from the six countries

Chapter 4 brings together the research evidence from the six country studies and compares this with the international literature.

Regarding educational access and quality in the provision of post-basic education and training, there are clear signs in the country studies of strong bias towards children from wealthier families and urban areas. The rural poor need to be assisted through targeted sponsorships and provision of hostels but the allocation of these benefits needs to be corruption free. The quality of primary education in poor rural areas needs addressing. State-run and state-supported technical and vocational education and training (TVET) often does not serve the training needs of the poorer sections of society. What countries officially term as ‘basic’ education may no longer be sufficient for employment and further training is generally needed, even for entry into the informal labour market.

In light of this evidence on access and quality, and in light of analysis of economic development at national and sub-national levels, it becomes clear that the findings of the global and regional ‘economic rates of return’ literature must be interpreted with great caution. The underlying assumption that the economic benefits to education can be estimated from wages overlooks a vast range of indirect economic benefits to the wider society, which may far outweigh wages. Changes and complexities in the labour market, especially in contexts where regular waged jobs are an exception rather than the rule, make the validity of data sets used to estimate rates of return highly dubious. This may partly help to explain the lack of consistency between the findings of different studies.

There is some evidence that secondary education is associated with the capacity to establish enterprises that create new employment opportunities. In several of the countries studied there are shortages of high-level skills at the same time as saturation of the labour market at other levels. This may be indicative of problems with the quality and relevance of the education currently being delivered and poor links with the labour market. The influence that education levels have on agriculture is highly context-dependent, and in general more educated individuals tend to be less likely to farm.

Evidence of links between education and biophysical data (fertility, mortality rates etc) implies that the relationship tends to be more pronounced after primary level. International and interstate studies show correlations between post-basic education levels and economic growth, poverty levels (negative) and equality.

5. Education, training and enabling environments

Chapter 5 explores the concept of the enabling environment in light of the research findings from the country studies, as discussed in **Chapter 4**, and the international studies discussed in **Chapter 2**. We argue that the politically attractive claims that schooling directly ‘makes a difference’ to productivity need to be qualified in two ways. First, these allegedly developmental effects of schooling are almost certainly dependent on other facilitating conditions being present – in the social, cultural, economic and political environments. And, second, these powerful impacts claimed of education are unlikely to be present – even in environmentally promising conditions – if the quality of the schooling or of the skills training is of a very low quality. Commonsense would suggest that a school affected by massive teacher absenteeism and low morale can have little impact on other developmental outcomes. Furthermore, this chapter notes that it is essential to question the capacity of developing economies, and especially their informal economies, straightforwardly to realise the positive outcomes which are often claimed to be associated with skills development through education and training. Education and training outcomes are obviously determined by many other things such as the quality of the education and training and the state of the enabling environment surrounding schools and skill centres.

6. Conclusions

The collected research from this six country study points to the flaws in common, oversimplified theories concerning the relationship between education and poverty reduction. We identify five common fallacies:

- the Causal fallacy: that increased primary education itself causes poverty reduction;
- the Human Development fallacy: that educational contributions to poverty reduction are best understood within the ‘human development’ paradigm which focuses on individuals’ knowledge and skills;
- the Insular fallacy: that primary education systems are relatively self-contained;
- the Pro-poor fallacy: that ‘pro-poor’ educational provisioning means focusing on primary education, and that ‘pro-poor’ is synonymous with ‘anti-poverty’;
- the Sprint-to-the finish fallacy: that rapid progress towards UPE is necessarily a good thing.

Primary education can lead to poverty reduction but only if the delivery context and transformative context are supportive. The development of these contexts is dependent, among other factors, on their being a sufficient level of *Post-basic* education and training in the country. Equitable access to Post-basic education and training can benefit poor communities even if it is not universal but currently many barriers exist that prevent certain communities from accessing it.

Chapter 1: Introduction

1.1 Background

Since their adoption in 2000, the Millennium Development Goals (MDGs)¹ have become a focus for many bilateral and multilateral development agencies. The MDGs include two education targets (targets 3 and 4) that are concerned with universal primary education and gender parity.² These reflect thinking within the World Bank, and other multilateral and bilateral agencies, that education, and particularly primary education, has a powerful relationship with many other development outcomes, and, through these, with the reduction of poverty more generally. Statements regarding the ‘developmental’ impact of basic education on almost every other millennium goal are found in Chapter 1 of the Education for All (EFA) Global Monitoring Report of 2002 (UNESCO, 2002), ‘Education for all is development’.

Nowhere in the MDGs is post-basic education and training (PBET)³ mentioned. Only with regard to gender parity is secondary education mentioned. Hence, the educational emphasis of the MDGs is obviously basic/primary education. A straightforward interpretation of the MDGs could thus lead to a policy of diverting educational assistance funds towards basic education and away from PBET. Indeed, many donors currently channel the majority of their aid for education into achieving the two education MDGs. For example, DFID allocates about 80% of its aid for education to basic and primary levels (DFID, 2000: 36).⁴ In 2001-2002, USAID allocated 72% of total education funding to basic education (UNESCO, 2004: 191).

Lessons are now emerging, however, to suggest that a more balanced approach to educational funding is required. PBET plays a crucial role in the realisation of basic education outcomes, as well as playing a direct and indirect role in sustainable poverty reduction and the achievement of the MDGs. Consequently, the withdrawal of funding from these sectors could be counterproductive and even reduce the effectiveness of spending in the basic education and other social development sectors.

The emphasis on basic education and universal primary education (UPE) is succeeding in many countries in raising both the gross and net enrolment rates at this level. Hence the number of those completing a basic education is now becoming quite large in many countries and raising the demand for PBET. As access to PBET increases, the demand for basic education will also increase. Furthermore, the economic argument for investing in secondary education (and possibly higher education) is changing and providing a new rationale for increasing investments in PBET. While rates of return to education have traditionally shown that primary education provides the best returns, other recent quantitative estimates for returns to education, such as Mincerian returns and regression analysis, point to the importance of post-basic levels. These newer studies are showing much higher rates of return for secondary education, even higher than those found for basic education.

In the modern world, with rapid changes in technology and increased demand for skills, basic

¹ See <http://www.developmentgoals.org/index.html>

² Target 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling. Target 4: Eliminate gender disparity in primary and secondary education, preferably by 2005, and to all levels of education no later than 2015.

³ We use the term Post-Basic Education and Training to cover secondary, tertiary, (formal and informal) technical and vocational education and training (TVET) and non-formal education and training (NFET).

⁴ The 2005 Global Monitoring Report estimates that 85% of total DFID aid to education went on the basic education level 2001-2002 (UNESCO, 2004: 191). See, however, David Levesque’s comments on the importance of post-primary education, at all levels, in *Norrag News No.37*.

education is not sufficient in preparing people for jobs. More education or training is required, a reality that is recognised by international and donor agencies. The World Bank's *Education Sector Strategy Update* (ESSU), for example, specifically mentions the growing importance of the knowledge economy and the need for a more skilled labour force in order to meet changing demands and maintain competitiveness (World Bank, 2005a). Moreover, the importance of basic education has shifted from preparing people for work to preparing people for higher levels of education, training and employment. As a consequence, basic education needs to be accompanied by investments in PBET.

This report is not suggesting that donors have necessarily been wrong to emphasise basic education. Indeed, a quality basic education provides the foundation for quality learning at the PBET level. We are proposing, rather, that a more systemic vision is required in future which acknowledges and emphasises the complementarities of the whole education and training system. A more balanced approach to educational funding is required which stresses the inter-relatedness of basic education and PBET.

1.2 Research questions

With the developmental outcomes of basic education in mind, this research set out to examine in what ways, and under what conditions, PBET can also be expected to contribute to poverty reduction. Firstly, we provided a synthesis of research on the potential contribution of both basic and post-basic education to achieving the MDGs, focusing on key texts produced by the international institutions. This synthesis examined the changes in policy positions over time and the research evidence upon which these shifts were based. Within this review a key focal point was the *context* within which education and training appeared to impact upon poverty outcomes, which we refer to as the 'enabling environment'.

We then sought to explore the evidence about the contribution of basic and post-basic education to poverty reduction and the achievement of the MDGs within six countries: Ghana, India, Kenya, Rwanda, Tanzania and South Africa. We considered the critical support systems, policy environments and national capacities upon which good quality education and training depended, and assessed the role of PBET in developing and sustaining these.

Our research proceeded on the assumption that there is a global consensus on the general importance of both basic and post-basic education in all countries to reduce poverty and bring about progress for individuals and society. But we also shared a concern that overemphasis on rapid progress towards UPE may be damaging the prospects both for educational achievements and their translation into poverty reduction in many poorer countries. Our primary concern is with the outcomes of educational processes and the *instrumental* values of education in relation to poverty reduction, rather than with the *intrinsic* values of education. Central to this is a consideration of the ways in which the benefits which people anticipate when they invest in education are dependent on *enabling environments*. Or, phrased more neutrally, educational outcomes are shaped not just by the qualities and quantities of educational systems but by *transformative contexts* which always include a rich mix of factors promoting or inhibiting good outcomes. These include labour markets, social stability and security, social inequality and social

networks. By providing a more sophisticated appreciation of educational complementarities and of the need for ‘enabling environments’ that transform educational processes into positive developmental outcomes we hope to provide input to national and international policy considerations about the balances, mixes, and sequencing of different forms of education in particular contexts. Education, therefore, is a necessary but not sufficient condition for poverty reduction.

1.3 What is ‘Basic Education’?

The World Conference on Education for All (WCEFA, 1990) stressed the need for universal *basic* education for all. The rise of the term *basic* education was partly due to a rejection of the term *primary* education, which was seen to imply preparation for further education rather than for life. It was also used to stress that provision of ‘basic needs’ in education should not mean primary schooling alone but should include other aspects such as pre-primary and adult literacy classes. A decade later, at the World Education Forum in Dakar (WEF, 2000), the term basic education was still in use, although it had been displaced by ‘primary’ in the target setting, as it would be also in the MDGs later that same year. In the *Regional Framework for Sub-Saharan Africa* (WEF, 2000), the two terms are used almost interchangeably, often written as ‘primary (basic) education’.

Given the wide range of different national education systems, these international documents have stopped short of giving a definition of basic education linking it to any specific stage or minimum number of years of education. The 2003/4 *Global Monitoring Report* defines it as:

The whole range of educational activities, taking place in various settings (formal, nonformal and informal), that aim to meet basic learning needs. It has considerable overlap with the earlier concept ‘fundamental education’. According to the ISCED,⁵ basic education comprises primary education (first stage of basic education) and lower secondary education (second stage) (UNESCO, 2003: 418).

For the countries within this study, post-primary education is often far from universal and the term ‘basic education’ was often treated as synonymous with primary education. As education systems expand and access to secondary education increases, the number of years of education considered to constitute basic education within the national policy literature has been extended. In some countries, like Ghana, Tanzania and Rwanda, lower secondary education is specifically mentioned as part of basic education. The Rwandan government, for example, has recently redefined its concept of basic education. It now seeks to achieve not just UPE but universal *basic* education, including three years of fee-free lower secondary (GoR/Mineduc, 2003a). The term basic education has consequently come to include lower secondary, with upper secondary and tertiary considered as post-basic. In Tanzania, the Minister for Education and Culture recommended in 2005 that the next government should go well beyond the MDGs by aiming for universal *secondary* education by 2015 (Mungai, 2005).

⁵ International Standard Classification of Education.

The way in which some highly aid dependent countries have expanded the meaning of the term ‘basic education’ may be seen in part as a response to donors’ increasing focus on basic needs and poverty reduction, and as a strategic device to coerce them into extending their funding beyond the primary level. A less cynical reading of the changing terminology is that it is a response to the changing skill requirements needed for individuals to operate in an increasingly technologically complex society and that globalisation and the growth of ICT mean that ‘basic learning needs’ cannot be met by primary education alone. This leaves secondary education in a rather ambiguous position with the danger of it falling between two stools within the policy and research literature as there is a tendency for the discourse on basic education (e.g. the EFA literature and the MDGs) to focus on primary education and the discourse on post-basic education to focus on higher education.

1.4 Country studies

The portfolio of country studies aims to illustrate some of the diversity of contexts in which education and training contribute to poverty reduction, while at the same time noting common patterns.⁶ The countries chosen were Ghana, India, Kenya, Rwanda, Tanzania and South Africa. All of the countries have a high incidence of poverty, with some similar patterns in the profile of poverty and educational levels. Each country has also taken on board the international poverty agenda and has subscribed to the goals of providing quality education for all. However, there are important differences in the political, economic and social histories and policies which enabled unique experiences to be explored in relation to the universal, international objectives outlined in the MDGs.

The main objective of the country studies was not to undertake new primary research but to draw out empirical evidence from existing research material about the contribution of education and training to poverty reduction. This drew on a range of research, studies and policies to examine educational and training processes, contextual factors, and key actors, as well as national policies for poverty reduction and growth. The authors benefited from interaction with policy-makers, researchers, donor representatives and other actors involved in the education and training systems in each country; this provided a complement to the desk-based research.

Poverty levels are high in all of these countries – although less so in South Africa – as Table 1.1 shows. In the United Nations Human Development Index (HDI) three of these countries (Ghana, India and South Africa) fall into the category of ‘medium human development’; the other three (Kenya, Tanzania and Rwanda) come under ‘low human development’ (see Table 1.2).

⁶ These detailed country studies (and their executive summaries) are available at: <http://www.cas.ed.ac.uk/research/projects.html>. This report brings together some of the findings of these studies, and readers are encouraged to refer to the full studies for greater detail.

Table 1.1: Poverty Incidence

	Human poverty index (HPI-1) Rank (103 countries)	Population living below \$1 a day (%), 1990-2003	Population living below \$2 a day (%), 1990-2003	Probability at birth of not surviving to age 40 (% of cohort), 2000-05 Children	underweight for age (% under age 5)
Tanzania	65	19.9	59.7	44.4	29
Rwanda	69	51.7	83.7	45.5	27
Kenya	64	22.8	58.3	44.8	20
Ghana	62	44.8	78.5	27.7	25
India	58	34.7	79.9	16.6	47
South Africa	56	10.7	34.1	43.3	12

Source: UNDP 2005 Human Development Report 2005: country tables (http://hdr.undp.org/statistics/data/index_countries.cfm)

Table 1.2: Selected Country Indicators

	HDI rank 2005	GDP per capita (PPP US\$) 2003	Life expectancy at birth (years) 2003	Adult literacy rate (% ages 15 and above) 2003
Tanzania	164	621	46.0	69.4
Rwanda	159	1,268	43.9	64.0
Kenya	154	1,037	47.7	73.6
Ghana	138	2,238	56.8	54.1
India	127	2,892	61.0	61.0
South Africa	120	10,346	48.4	82.4

Source: UNDP 2005 Human Development Report 2005: country tables (http://hdr.undp.org/statistics/data/index_countries.cfm)

An important distinction is between the four countries that are part of the Heavily Indebted Poor Countries (HIPC) initiative – Ghana, Kenya, Tanzania and Rwanda – and India and South Africa. HIPC provides access to enhanced debt relief provided that the governments put in place a robust poverty reduction strategy. These four countries therefore demonstrate similar policy environments with national poverty reduction strategies established in the late 1990s; the influence of external actors, notably the international financial institutions and donor agencies, is also evident. While not under the same obligations with regard to poverty strategies, nevertheless we see a poverty focus in South Africa and Indian policy also.

The six countries allowed for an interesting comparison in terms of their education environments which reflect different histories and social contexts. Tanzania and Kenya both employed policies aimed at achieving UPE in the early years of their independence. In the late 1970s and early 1980s these countries saw huge quantitative expansions of their primary education systems. But the quantitative gains often came at the expense of quality, leaving fragile systems that could not maintain the high enrolment rates through the world recession of the 1980s. These experiences provide a very stark lesson about the dangers of focusing too heavily on individual sub-sectors of the education and training system. Primary education in Ghana was made free and compulsory within the first five years of Independence (Williams, 2005) but it did not see enrolment rates rising as high as they did in Kenya and Tanzania.

All three countries have, in the past, attempted to integrate vocational education into their mainstream secondary curricula in order to link post-primary education with employment, and government-subsidised vocational training through other institutions is also available. Ghana's well-established traditional apprenticeship system provides a useful comparison between skills training delivered in the work place and training delivered in institutions as potential devices for poverty reduction.

South Africa's education system is still struggling to overcome the inequalities inherited from apartheid. Access at the basic level is no longer such a pertinent issue here and the main problem is one of huge unemployment. The Government has been striving to restructure its education and training system to meet skills shortages and to produce job creators. The inequalities of educational provision in different regions of India are very striking. Here the disparities between educational access in the different states provide a useful data set for quantitative analysis of correlational links between education and poverty levels. Both India and South Africa demonstrate the complexity of policy demands where there are effectively two countries within a country, given their high poverty incidence yet advanced industrial sectors.

In Rwanda the education system has had to cope with the dual challenge of providing education for all and compensating for the major high-level skills shortages resulting from the genocide. There has been a battle of priorities between tertiary education, which is seen as vital for long term economic growth, and primary education, seen as necessary for medium-term poverty reduction. Rwanda's heavy reliance on international development assistance raises serious issues about policy ownership and the sustainability of educational development and poverty reduction.

1.5 Comparison of the formal education systems of the six countries

The countries in this study have slightly different structures in their formal education systems (see Table 1.3) but are generally close enough for some degree of comparison.

Table 1.3: Comparison of the Formal Education Systems in the Six Country Case Studies

	Primary	Secondary	Tertiary
Tanzania	7	6(4+2)	4
Rwanda	6	6 (3+3)	3/4
Kenya	8	4	4
Ghana	6	6 (3+3)	3/4
India	8+2+2		3
South Africa	6	6 (3+3)	3

[figures in brackets refer to duration of lower and upper secondary education respectively]

Table 1.4 shows the NERs and GERs per sub-sector for each of the countries studied. The figures show that Kenya and Ghana were both very far from UPE in 2002/2003. The most dramatic differences between the countries are seen at post-primary level where the drastically low secondary enrolment ratio for Tanzania and the comparatively high secondary and tertiary GERs for South Africa stand out. All the countries in the study have declared compulsory education for certain ages; Ghana has the longest compulsory education at nine years duration between the ages of 6 and 15; whilst in Rwanda compulsory education currently ends at 12 years old (UNESCO, 2005). All the countries, save for South Africa, have a legal guarantee of free education. In spite of this, South Africa has the highest primary NER. The low enrolment rates for the other countries show that there is still a wide gap between official policy and actual practice.

Table 1.4: Enrolment Ratios at the Primary, Secondary and Tertiary Levels in Selected Countries in SSA and India, 2002/3

	Primary 2002/3		Secondary 2002/3		Tertiary 2002/3
	NER (%)	GER (%)	NER (%)	GER (%)	GER (%)
Tanzania	77.4 **, <i>z</i>	90.8 <i>z</i>	6.0 <i>a</i>	7.1 <i>a</i>	0.9
Rwanda	86.7	122.0	...	16.1	2.5
Kenya	66.5	92.4	24.5 **	32.9	2.9 **, <i>y</i>
Ghana	59.0 <i>z</i>	83.0 <i>z</i>	36.2 <i>z</i>	42.4 <i>z</i>	3.2 <i>z</i>
India	87.5	107.5	...	52.8	11.9
South Africa	89.0	105.6	65.5 **	87.7 **	15.0
South Africa and West Asia	82.5	102.0	43.6	49.9	2.4 **, <i>x</i>
SSA	63.5	91.1	22.1	28.4	3.9 **, <i>z</i>

** estimates

(x) data for 2001/2002

(z) data for 2003

... missing data

(y) data for 2003/2004

Source: UNESCO, 2005; GoURT/ MoEC, 2004.

Enrolment data alone, however, do not tell us whether it is the supply or the demand for education that is the limiting factor. Some indication of demand is given by the extent of private provision. In the country case studies there are marked differences in private enrolment as a percentage of total enrolment at the primary and secondary levels (Table 1.5).

Table 1.5 : Private Enrolment as a % of Total Enrolment

	Primary education 2002/3	Secondary education 2002/3
Tanzania	0.5 y	(42 z)
Rwanda	0.8	44**, x
Kenya	5.6 x	4.2 x
Ghana	18 y	11 y
India	17	42
South Africa	2	3**

** estimates
(x) data for 2001/2002
(y) data for 2003/2004
(z) data for 2003 from national source, (GoURT/MoEC 2003)

Source: UNESCO, 2004, 2005⁷

Demand for private primary education can arise as a result of limited access to state schools, as has been the case in some underserved areas in Kenya. But those in underserved areas can rarely afford private provision. Demand for private primary education can also be fuelled by high competition for state secondary places. In Ghana, India and Kenya, richer parents have opted out of the state primary system and are willing to pay fees for private ‘academies’. Privately educated children tend to have an advantage in the competition for secondary places over their contemporaries educated in the under-funded state system. This enables the wealthier families who can afford private primary education to benefit from state-funded secondary education. Private provision at secondary level in Ghana and Kenya is lower than at primary level, indicating that many of those who can afford private education return to the state sector at secondary level. This is problematic in terms of poverty reduction and equality as it restricts secondary access for the bright poor. At the secondary level, Rwanda, Tanzania and India all have over 40% of secondary enrolment in private schools, reflecting the demand for secondary school places that none of these governments can currently satisfy (cf. Tikly et al, 2003). This compares to just 3% in South Africa.

⁷ This section uses the latest UNESCO statistics (unless not available) in order to do country comparisons from a common international source. However, frequently the UNESCO data is not the most up-to-date data and in some instances differs markedly from country data sources. Readers are asked to bear these caveats in mind when interpreting the data and are advised to consult the specific country papers in order to compare how UNESCO figures differ from official government figures.

For families without the resources to pay for private education the response to low quality state provision is often to withdraw children from schools. In Rwanda only around a third of children stay in school until the end of primary level. In Kenya, Ghana and India less than two thirds remain in schools (table 1.6).

Table 1.6 : Primary Education: Survival (Completion) Rates and Transition to Secondary Education in Selected Countries in SSA and India, 2001/2

	Survival rate to last grade of primary (%) 2001/2			Transition to secondary (%) 2001/2		
	Total	Male	Female	Total	Male	Female
Tanzania	73.9	74.0	73.9**z	18.8	19.8	17.9**z
Rwanda	36.6	36.0	37.2
Kenya	56.2**	72.5	74.6	70.4**
Ghana	60.0	55.3	65.3	91.0	96.5	85.5**z
India	61.4	59.7	63.5 y	86.7	84.9	89.0
South Africa	57.4	58.5	56.3 x	91.9	90.7	93.0 x
South and West Asia	64.9	63.3	66.9	86.7	83.0	89.0
SSA	59.9	57.5	62.4	60.0	73.6	46.0

... missing data

(x) data for 1999/2000

** estimates

(y) data for 2000/2001

(z) data for 2003/2004

Source: UNESCO, 2005

Table 1.6 also gives the transition rate from primary to secondary schooling as it stood in 2001/2002. With the exception of Tanzania, where secondary education has been highly limited for historical reasons (see below), the majority of those completing primary school proceeded onto secondary education. In the late 1990s primary education was far from universal and large numbers of children dropped out. In recent years there has been a huge increase in primary enrolment, especially in Kenya and Tanzania where school fees were dropped in response to the EFA movement and donor support. As these extra pupils move through the system, transition rates are set to fall significantly unless secondary education can be dramatically expanded.

1.6 Comparison of the training systems of the six countries

Across the countries covered in this report, Technical and Vocational Education and Training (TVET) occurs in many different environments, both formal and informal, and in institutions (schools or vocational centres and colleges), on-the-job (e.g. traditional apprenticeships in Ghana) or both (e.g. learnerships in South Africa). It can be short duration (e.g. STEP in Ghana)⁸ or long duration (a typical three year institutional course). Given that TVET can take so many different forms, in different settings, of different lengths in different countries, and be under so many different ministries, comparative data on TVET systems are difficult to compile. Where it is compiled it has to be read with caution since what is classified as TVET in one country is not necessarily the same in another. With this note of caution in mind, however, it is possible to use official (UNESCO) data to calculate the enrolment in TVET at the secondary level as a percentage of total secondary enrolment for the case study countries in this report (see Table 1.7).⁹ Rwanda appears to have the highest enrolment in TVET at the secondary level (13%), followed by Tanzania (9%) and South Africa (5%). In SSA, according to these UNESCO statistics, Ghana has the lowest enrolment in TVET at the secondary level (1.5%). However, in Ghana's case it is clear that this figure refers to the upper secondary level only and does not include the more general attempt to bring vocational skills into the lower secondary level.

Table 1.7: Enrolment in Secondary Technical and Vocational School as a Percentage of Total Secondary School Enrolments in Selected Countries in SSA and S.Asia 2002/3

	Enrolment in technical and vocational education (TVET) Total (000)	Total Enrolment secondary education Total (000) Enrolment in	TVET as % of total secondary enrolment
Tanzania	24 **	271 **	8.86
Rwanda	21 **y	167 **y	12.57
Kenya	28	1,390	2.01
Ghana	19 z	1,277 z	1.49
India	710	81,050	0.88
South Africa	203 **	4,312 **	4.71

... missing data (x) data for 1999/2000

** estimates (y) data for 2001/2002

(z) data for 2003/2004

Source: UNESCO, 2005 (Rwanda and Tanzania data from UNESCO, 2004).

The relatively high enrolment in TVET in Tanzania's secondary sub-sector (9%) is a result of a policy since the 1970s to follow a diversified secondary curriculum. In Rwanda the upper

⁸ STEP – Skills Training and Entrepreneurship Programme. For more on STEP, see Palmer (2005, 2007a,b).

⁹ Note that this table says nothing about TVET provision outside the ministries of education. In many countries TVET provision occurs across multiple ministries (e.g. in Ghana TVET is delivered through nine different ministries).

secondary levels are streamed and include technical and vocational elements. With the new education reforms in Ghana proposing a streamed upper secondary level (agricultural, vocational, technical and academic), we might expect the percentage of students enrolled in TVET at the secondary level to increase for Ghana.

Nonetheless, “[g]enerally speaking, the low percentage of technical and vocational education in general secondary education is partly due to the public’s attitude to this branch, which is usually regarded as leading to low-status occupations” (Atchoarena and Delluc, 2001: 42). This type of education is considered to be for those who failed in general education (*ibid.*). Atchoarena and Caillods point to a contradiction “between the generally negative image of technical and vocational education and the strategic role it is supposed to play in the race for international competitiveness” (Atchoarena and Caillods, 1999, cited in Atchoarena and Delluc, 2001: 42).

While school-based TVET is supposed to play this strategic role in developing a country’s capacity to compete internationally (*ibid.*), in the majority of the six countries in this report there are simply not sufficient numbers of the type of formal technical jobs to absorb even these small numbers of TVET school leavers. On the one hand, therefore, it is hoped that school-based TVET will develop a country’s industrial capacity, while on the other hand it is precisely the under-developed nature of the existing industrial fabric, and hence lack of formal jobs in this area, that contributes to the negative perception of TVET (King and Palmer, 2006a). In the case of formal TVET provision it would seem that lack of demand, both from trainees and employers, is the major limiting factor to enrolment, rather than supply.

1.7 Overview of the report

This report brings together the conclusions of this research. It synthesises the main findings of the country studies, policy briefs, and academic papers produced by the project team, drawing out core themes and areas of convergence and divergence amongst the different studies. A full list of the papers produced during this research project is provided in the Appendix.

Chapter 2 sets out the analytical and theoretical framework of the study and defines our two core concepts of the delivery context and the transformative context. It reviews some of the global evidence on the linkages amongst education, skills training and positive development outcomes. Chapter 3 looks at the question of poverty, examining the range of ways in which it is measured and at local understandings of the concept. It explores how education and training are seen to contribute to poverty reduction and development within national and international policy, and considers how national agendas may differ from donor ones. Chapter 4 brings together the research evidence from the six country studies and compares this with the international literature. Chapter 5 explores the concept of the enabling environment in light of the research findings from the country studies and the international studies discussed in Chapter 2. The final chapter gives conclusions and some policy implications for the research. It suggests some areas for further empirical research based on the model of the outcomes of education being determined by the context of education itself (the delivery context) and the environment in which education and training graduates live (the transformative context).

Chapter 2: Linking Education, Skills and Context

Summary and Core Issues

- According to our theoretical model, in order for education and training to impact on poverty reduction there needs to be an enabling environment in which the education and training are delivered and in which the knowledge and skills gained can be transformed into behaviour that promotes individual, community and national level development. The translation of this development into poverty reduction also depends on who has access to the education and how gains in individual human capital translate into national development and improved service provision for the poor.
- Research into the effects of education and training face a range of methodological considerations. The quality of education and the wider context need to be taken into account when considering educational effects.
- Research into the effect of education on farmer productivity illustrates the importance of context. Its subsequent use within policy documents illustrates how easily contextual factors can be ignored.
- Taking context into account means considering education and training systems holistically, paying attention to the role of post-basic education as well as primary education.
- Key issues arising, which are discussed in further detail in subsequent chapters, include: the tension between poverty reduction and economic growth; the type of education and training that is needed within developing contexts; the social composition of those in education and training; and the need to both adapt the education and training system to the environment whilst considering how the environment itself can be improved.

2.1 A theoretical framework for investigating the linkages between education, training and poverty reduction

Our research is based on the assumption that all education and training have the potential to confer a wide range of developmental benefits to the individual, community and the state/nation, but that the realisation of these benefits is dependent on the education and training being embedded within an enabling environment. The returns to education and training depend on the quality within the education and training systems, the **delivery context**, and the environment into which graduates enter after education and training, the **transformative context**. These benefits can be poverty-reducing either by helping the poor directly, or indirectly through supporting the delivery context and the transformative context at community or national levels. The access that the poor themselves have to different levels of education and training is of critical importance at the individual and community level but becomes of less importance when the indirect, national level effects are considered.

The different potential pathways from education and training to poverty reduction are outlined below.

Individual benefits

An individual gains skills and knowledge; these enable him/her to improve his/her standard of living through employment, higher wages, more productive farming techniques, more informed choices about fertility, avoidance of unhealthy practices, etc.

This can be provided through a **basic** level of education (which may include lower secondary education) but for these benefits to be poverty-reducing:

- the poor must have access to this education (i.e. education for all);
- it must be of decent quality (delivery context of basic education);
- graduates need to enter an environment in which they can use their knowledge to improve their quality of life (transformative context).

Community benefits

If individuals learn skills beyond the level of that of their family/immediate neighbours, they can confer benefits on their local community **indirectly** through starting enterprises that create employment, sending home remittances, introducing farming techniques that are imitated by neighbouring farmers, providing local services (e.g. teachers), providing positive female role models that challenge local perceptions, etc.

Communities will tend to benefit indirectly from individual members within the community that have some post-basic education and training. For this to contribute to poverty reduction:

- poor communities (but not necessarily all individuals) must have access to PBET;
- graduates from PBET must retain links with their home communities – either living there or sending remittances;
- the delivery context of PBET and the transformative context need to be supportive (e.g. entrepreneurs need to be able to set up businesses).

State level/national level benefits

A more educated workforce is more productive. This raises more income at a national level, enabling the government to raise more through taxation and to provide better social services. Education and training can also increase national capacity in terms of service providers (doctors, teachers) and developmental expertise (researchers, extension workers, etc).

Raising the mean level of education by investing in basic education should theoretically raise overall levels of productivity but the country also needs a corps of professionals to provide services. A highly educated minority could stimulate industrial growth and attract foreign direct investment and this may potentially have a much greater effect on GDP than basic education levels of the majority.

For these indirect benefits at a national level to lead to poverty reduction:

- it does not matter who has access to education and training provided they use their skills to develop the nation;
- government policies must ensure that gains in income and human capacities at the national level are used to support the development of services for the poor.

Policy makers need to determine how to allocate spending to different levels of education and training in order to get the optimal results. Higher levels of education are almost always much more expensive than primary provision; so the more extensive benefits must be weighed against the fact that fewer individuals can be supported. The question of what is the optimal balance of educational spending for poverty reduction is easier to conceptualise at a family level: in a context where educational costs are met by user fees, is a family more likely to escape poverty and reduce its vulnerability if it sends all offspring to primary school or should it focus resources on sending one individual to secondary school in the hope that he/she will gain skills and income generating capacity that may benefit the family as a whole? The evidence for the six countries suggests that this is not a straightforward choice, and in some cases the rate of return to investment in post-primary education for some of the population may outweigh the returns from investment in universal primary education (see Chapter 4). The justification of funding UPE in these circumstances is therefore a rights-based one rather than an economic one. When considering the problem at a national level the situation is more complex, not least because educated individuals may feel less responsibility to their nation than to their family; so the indirect effects may not be conferred.

At a national level it is helpful to consider the two extremes, however unrealistic such scenarios may be. Firstly there is the bottom-up, pro-poor approach: state spending is entirely on universal basic education at as high a quality as funds will permit, with no state investment in PBET. This clearly creates problems of inequality as only the richest end of society will be able to afford the fees of an unsubsidised PBET system. Also it raises the question of national capacity: where will the teachers of basic education and other professionals get their education and training? The alternative is the top-down approach: government spending is mainly focussed at secondary and university level to produce a highly skilled workforce capable of earning high incomes and with skills that can be used to improve service delivery to the poor of future generations. The obvious flaw with this model is that many graduates will simply go overseas, taking their skills with them or remain in highly lucrative city-based jobs that do not benefit the poor in any way. Since both extremes are unlikely to result in long-term equity and poverty reduction, policy makers need to consider where the optimal balance lies. For sustainable poverty reduction, and for sustainable UPE, there needs to be a balance between investment in basic education and investment in the higher levels of education and training needed to support the delivery context and transformative contexts. This balance will clearly be different within each country context and will change over time.

Education for All (EFA) and the MDGs have tended to push policy towards the bottom-up extreme. Whilst this research does not question the rights-based argument for EFA, it does question the timescale and considers the sustainability of very rapid expansion of the primary sector when it occurs at the expense of the post-primary sectors. This study investigates whether routes by which different levels of education and training can contribute to poverty reduction, as presented in the theoretical model above, exist within the country contexts, and to what extent these routes are enabled or inhibited by the contexts of the delivery of education and training and the environment beyond schooling and training.

2.2 The conceptual and methodological challenges of linking education, skills and poverty reduction

Table 2.1 outlines a typology of analytical considerations for linking education, skills training and poverty reduction. A few of these considerations are discussed briefly below.

First we need to be clear about the types and levels of education and skills we are referring to, and also where these are delivered – in institutions, on-the-job or both. For skills training, for example, this might be divided into:

- pre-vocational and orientation skills acquired through general primary or lower/upper secondary education;
- traditional forms of TVET: i.e. school-based TVET at the lower/upper secondary level;¹⁰ Centre/institution-based vocational training; Formal/informal enterprise-based training (including traditional apprenticeships); Agricultural training; Public or private training;
- general tertiary education and higher-level technical and professional skills training: i.e. general tertiary education, higher-level training at tertiary level in TVET, including training of instructors/teachers; Post-secondary agricultural education, training and research; High-level health skills; High-level business skills; High-level governance skills.

Second, when examining the evidence or assertions related to education, skills training and poverty reduction, we need to be clear about what aspects of poverty or wellbeing (e.g. biophysical/social, individual/collective) are said to be causally linked with education and training. Are policy-makers paying due attention to all dimensions, or is their attention unduly biased towards specific dimensions such as income? We note in Chapter 3 that, despite the recognition of poverty having social, physiological and financial dimensions, in practice the core meaning of poverty for most people remains income poverty (and this can be seen as the dollar-a-day MDG indicator). Education generally, and primary and basic education in particular, are often linked with a whole host of positive development outcomes, for example, income, fertility and productivity. TVET skills training is usually linked with improvements in productivity, quality and diversity of work, occupational safety, health and income benefits. Correlational studies linking education, skills training and poverty reduction will tend to focus on individual and biophysical/income-related aspects of poverty that are more easily measured, and pay less attention to the multidimensional nature of poverty. As the different aspects of poverty are interrelated, improvements in the quantifiable aspects of poverty may translate directly into overall poverty reduction but this translation should not be assumed to be automatic.

Third, another question to ask is whether claims about education and skills training are usually linked with *alleviation* (of aspects or symptoms), *reduction* (lifting people out of poverty), or *prevention* of poverty. Education and skills training, of all types, are usually linked to income benefits as we have just noted and so are concerned with all three kinds of poverty reduction. But different levels of education and skills provision are linked to different types of poverty reduction. For example, traditional apprenticeship training might be more associated with

¹⁰ It is intriguing to note that despite the rhetoric about the move from traditional TVET to flexible skills development, the Bank's latest volume on secondary education admits the following: "Overall, there appears to be some movement away from institutionally distinct secondary vocational schools and programmes, although most countries still have such arrangements" (World Bank, 2005c: 85).

alleviation of poverty since its many weaknesses (World Bank, 2004a; Palmer, 2007a) frequently preclude a graduate apprentice from operating on a level that might significantly raise their standard of living and hence lift them out of poverty (poverty reduction proper). PBET too often tends to exclude the poor, but it might be argued that one of the contributions of PBET to poverty reduction is not by lifting people out of poverty but by preventing people from becoming poor in the first place (prevention of poverty). The higher incomes associated with higher levels of education and training imply that those who manage to acquire skills at this level will be less likely to become poor. Clearly, this depends crucially on the size and inclusiveness of the post-basic segments of education and training. The multidimensional character of poverty, as well as the various definitions of poverty reduction, mean that an assessment of education/training impacts on income alone will not be satisfactory, and that such an assessment needs to be explicit about the type of poverty reduction that is being referred to. This suggests that it is not sufficient to claim that a particular programme is targeting the poor, but rather the programme outcomes should be made more explicit.

Fourthly, with reference to statistics on the relationship between different levels of skills development and poverty reduction, we noted earlier that there seem to be few attempts to do the kinds of rate of return calculations with TVET that are so commonly associated with formal education.¹¹ This, as we suggested, was because TVET is far less comparable across countries than formal general education. Also, methodologically, it is more difficult with TVET to separate skills training itself from other variables.¹² For example, for those who enter TVET with some prior degree of educational attainment, it can be difficult to disaggregate the impact on outcomes of formal education compared to training (e.g. income). Many other people enter skills programmes after having worked in the labour market for some time and, in this instance, it is difficult to separate out the impact of skills training from the impact of work experience (and the possible associated development of social and financial capital resulting from work experience). For those individuals who have been through formal education, then entered the labour market for a number of years, and then gone onto some form of TVET, the methodological challenge is even greater. In addition, where skills programmes have a micro-finance (and/or some other business development) component – which is often the case with donor-funded projects – it is methodologically difficult to determine how much impact the training has had when compared to the microfinance or other support services as part of the project.

Fifthly, determining what factors enable or inhibit good educational/training *provision, attendance, and achievements* is crucial to any understanding of the links between education, training and outcomes (e.g. infrastructure, equipment and text books, biophysical environment, teachers/trainers, culture, family support, finance, immediate opportunity costs). It is clear that the **delivery contexts** of different education and/or training modalities vary, and that some delivery contexts are more enabling than others.

Sixthly, any examination of the links between education and/or training and outcomes has to fully comprehend what factors enable or inhibit the transformation of education and/or training

¹¹ See however Bennell (1996b) who makes the point that of the 19 country studies with reasonable quality of data only 5 arrive at rates of return to general secondary that are significantly higher than to vocational secondary schooling.

¹² But one can equally argue that the rate of return calculations pay little attention to other variables, such as household socio-economic background, quality of education, what skills were actually acquired in schools and so on. (World Bank, 2005c: 85).

into good *outcomes*. In other words, what is the state of the **transformative context**? (e.g. opportunities for application of knowledge and skills in jobs, in political participation, and community responsibilities; enough social stability for people to build on the social links generated through education and training). Indeed the importance of the socio-economic context in which education/training is delivered and potentially transformed into developmental outcomes comes across strongly in the literature. The translation of skills development – which results from the capacities that are acquired through different types and levels of education and training – into skills utilisation, and therefore poverty reduction and/or growth, is dependent on many factors, including good quality education/training and the presence of a supportive environment. But the utilisation of these capacities requires further facilitative infrastructure. Among the most critical factors in any supportive environment will clearly be the availability of work and employment. This emphasis on the crucial nature of context is reinforced by the latest agency awareness of the contribution of infrastructure to development (Wolfowitz, 2006). This has translated into a realisation that many of the MDGs are not just examples of social sector provision but require investments in infrastructure for their adequate delivery, and for the results of education and training to be fully realised. This is certainly true of the Education and Health Targets.

Our analysis of the complexity of poverty and of the politics of poverty reduction suggests that the claim of a connection between an education or training programme and poverty alleviation needs to be carefully analysed, and the character of the programme’s recipients understood. To what extent the poverty focus is a requirement, especially in donor projects, needs to be assessed.

Table 2.1: A Typology of Analytical Considerations for Linking Education and Skills Training to Poverty Reduction Outcomes

Analytical focus	Questions and challenges
i. Dimensions of poverty and wellbeing – biophysical/social; individual/collective;	<ul style="list-style-type: none"> • What aspects of poverty or wellbeing are we saying are causally linked with education and training? • Are policy-makers paying due attention to all dimensions, or is their attention unduly biased towards specific dimensions such as income?
ii. Components and meanings of poverty reduction	<ul style="list-style-type: none"> • Are we linking education and training with <i>alleviation</i> (of aspects or symptoms), <i>reduction</i> (lifting people out of poverty), or <i>prevention</i> of poverty?
iii. Kinds of strategy or policy for poverty reduction	<ul style="list-style-type: none"> • Are we concerned with <i>targeted</i> or <i>inclusive</i> educational strategies? • With <i>practical</i> improvements to education systems and to poor people’s lives or with <i>strategic</i> efforts to change political and cultural contexts? • With <i>direct</i> or <i>indirect</i> assistance to poor people? With interventions at <i>micro</i>, <i>meso</i>, or <i>macro</i> level?
iv. Kinds of education and skills	<ul style="list-style-type: none"> • What kind of education or skills training are we assessing, and where is it taking place: e.g. primary, secondary, tertiary? General education, health education, moral education, vocational education? Institutional, on-the-job?

v. Providers and their approaches to the provision of education and training	<ul style="list-style-type: none"> • Are the pathways to poverty reduction different depending on whether education or training are provided in public/private schools or vocational training institutes/centres or by NGOs, (formal and informal) enterprises, or through community/peer education?
vi. Kinds of people educated	<ul style="list-style-type: none"> • Do our claims about educational pathways to poverty reduction take adequate account of the diverse categories of people educated – <i>poor/nonpoor; young/old; male/female; rural/urban?</i>
vii. Delivery context (enabling environment for educational processes)	<ul style="list-style-type: none"> • What factors enable or inhibit good educational <i>provision, attendance, and achievements?</i> (e.g. infrastructure, biophysical environment, teachers/trainers, culture, family support, finance, immediate opportunity costs)
viii. Transformative context (enabling environment for developmental outcomes, incl. poverty reduction)	<ul style="list-style-type: none"> • What factors enable or inhibit the transformation of education and/or training into good <i>outcomes?</i> (e.g. opportunities for application of knowledge and skills in jobs, in political participation, and community responsibilities; social stability, access to services, markets , farm inputs etc.)
ix. Benefit assessment	<ul style="list-style-type: none"> • Are we assessing <i>individual</i> (or ‘private’) benefits to those educated/trained, or <i>social</i> benefits transferred (through knowledge, income, status) to kin and community and to society in general (through productivity, social cohesion, scientific progress, improvement of services)? • Are we looking at <i>intrinsic</i> benefits (direct contributions of educational processes and knowledge to the quality of life) or <i>derived</i> benefits (capabilities to achieve or enjoy other things)? • Are we concerned with specific <i>technical</i> capabilities or diffuse <i>analytical</i> or <i>social</i> capabilities that are improved through education?
x. Cost and risk assessment	<ul style="list-style-type: none"> • Are there some fairly <i>direct</i> ways in which particular educational processes risk exacerbating poverty – e.g. putting families into unsustainable debt, training people in unmarketable skills? • Even if all educated individuals appear to make net gains from education, is it not possible that the net cost to society outweighs the values of some educational investments (e.g. if the main outcome of extra investments is simply to ratchet up qualification levels without adding useful capabilities)? • What about the indirect costs, particularly the opportunity costs to individuals and the state of resources that could have been better deployed in other ways?
xi. Measurement	<ul style="list-style-type: none"> • How will the approach used separate out the effects of education and training with other factors? i.e. <ol style="list-style-type: none"> i] Where skills training or education are combined with micro-finance or business development support; ii] Where education and training pathways include both formal education and TVET; iii] Where work experience precedes education or skills training; iv] Where access to education and training is dependent on a family’s financial and social capital.

2.3 The ‘farmer education fallacy in development planning’ and the importance of context

In order to test our theoretical framework, and to examine current claims about the links between education and poverty reduction, we revisited the original research behind one of the most well-known policy claims in the whole sphere of international education and training – that four years of education increases agricultural productivity – and we traced the policy history of this claim (King and Palmer, 2006c; King et al, 2005). Based on this example, we were able to explore the nature and role of the enabling environment. We use this to support and develop our theoretical framework with which to consider the other potential benefits of education. In Chapter 6 we explore the issue of the need for education to be embedded within a wider environment for the realisation of a whole range of benefits, but here we focus on the influence that education has on farmer productivity.

In 1980, Lockheed, Jamison and Lau published their findings from a meta-analysis of 18 case studies of education and farmer productivity carried out in 13 different countries (Lockheed, Jamison and Lau, 1980). The original policy attractiveness of the research was doubtless because it claimed a connection between education and increased farmer productivity. This was particularly compelling in the World Bank at the time as the Bank wanted to make the case that investment in education was not simply a consumption good or a human right, but that it also translated into economic growth. The same research has been used, far beyond the Bank, to demonstrate the potential impact of basic education on poverty reduction. King and Palmer (2006c)¹³ re-examine these connections in detail, noting the way that this particular research finding has been translated into policy documents over the last 25 years. They note that whilst the original research was explicit about the role of the enabling environment, the importance of the nature of the delivery context and of the transformative context was frequently overlooked in subsequent documents drawing on the research.

Without intending to cast doubt on the evidence for this finding, we question the ways in which the research results have so frequently been oversimplified or misrepresented by those who have used them. Versions of this finding are quoted, for example, as recently as the Education For All (EFA) Global Monitoring Reports (GMR) of 2002 and 2003 (UNESCO, 2002, 2003), and also in the ILO volume from the 91st session of the International Labour Conference (ILO, 2002). But these are really misquotations; the original research said education makes a difference to farm productivity of about 10% in ‘a modernising environment’. Education makes virtually no difference, the research argued, if the environment is nonmodern (where agriculture is traditional and where there are no new methods and new crops being tried out):

Under modernizing conditions, the effects of education are substantially greater than under traditional conditions... The mean increase in output for 4 years of education under traditional conditions was 1.3% [standard deviation of 11%], compared with 9.5% [standard deviation of 5.7%] under modern or modernizing conditions (Lockheed et al, 1980b: 56).

¹³ See also a shorter version of some of the arguments in the King and Palmer (2006c) paper in King, Palmer and Hayman (2005).

The authors use the term ‘modernising environment’ to refer to a transformative context where there were:

new crop varieties, innovative planting methods, erosion control, and the availability of capital inputs such as insecticides, fertilizers, and tractors or machines. Some other indicators of [a modern] environment were market-orientated production and exposure to extension services (Lockheed et al, 1980a: 129; cf. 1980b: 55-56).

Lockheed et al concluded that without the conditions of a modernising or modern environment, it was difficult for educational effects to occur (Lockheed, personal communication, June 18th 2004), and indeed “the mean percentage increase [in productivity] may even be negative” (Lockheed et al, 1980a: 131; 1980b: 57). In other words, if education is to make a difference to agricultural productivity, certain other things needed to be in place. It is important to note here that some of these contextual factors such as extension services are directly dependent on the post-primary educated manpower available.

Lockheed et al (1980a: 120; 1980b: 46) originally “calculated the percentage increase in output for 1 additional year of education”. However, they were interested in the percentage increase or decrease in production that resulted from four years of schooling, as this was the ‘often-stated minimum’ for the basic-education cycle at the time (Lockheed et al, 1980a: 129; 1980b: 47).¹⁴ As a result their estimate “of the effect of 4 years is... simply four times the effect of 1 year as computed” (ibid.). Thus Lockheed et al assumed a linear effect for the education function: that every additional year of schooling had the same effect on productivity, year after year.

If the above finding is used without a reference to the crucial importance of the economic context or environment, there is a danger of misleading the reader. The Lockheed et al research points to the fact that education (or literacy) **on its own** may not be sufficient to result in positive developmental outcomes. This is a very simple message, but it is exactly the opposite of what many agencies derived from it. There has also been a tendency to overemphasise the importance of the four-year period, when this was just a convenient unit chosen in order to conform to contemporary ideas about basic education. The quotes below show how the findings have been oversimplified, and in some cases misinterpreted.

According to the World Bank, primary education is the single largest contributor to growth in developing countries. A farmer with four years’ schooling is much more productive than one who has no education (ILO, 2002: 4).

Many studies have shown that schooling improves productivity in rural and urban self-employment. Early evidence suggested that four years schooling was a critical period. More recent work has suggested that additional years continue to make a difference (UNESCO, 2002: 34).¹⁵

¹⁴ Four years of education was in fact not the length of most countries’ basic cycles of education – but in the Bank at this time there was a view that 4 years of education might be the minimum necessary to secure the retention of literacy (see King, 1991).

¹⁵ The UNESCO publication cites the Lockheed et al. (1980) study directly (see UNESCO, 2002: 34, fn 18).

... female education ...[has]... positive effects on levels of agricultural productivity. This relationship has been well documented for many years [Jamison and Lau, 1982] (UNESCO, 2003: 30).¹⁶

The suggested direction for policy development in primary education is premised on the critical role that this level of schooling plays in a country's economic and social transformation. Even in **traditional** agriculture, studies have shown that in most developing country contexts this modicum of schooling substantially boosts farmer's productivity [see, for example, Lockheed, Jamison, and Lau 1980; Foster and Rosenzweig 1996] (World Bank, 2004b: 175, emphasis added).¹⁷

[Or simply...] Educated farmers are more productive (Weale, 1992: 3).¹⁸

The research on farmer education and efficiency provides a striking instance of research findings being oversimplified and stripped of context, hence resulting in the misrepresentation of the research findings in later policy documents. Hence while this demonstrates a 'successful' case of research leading to policy change, it also highlights the way in which policy 'narratives' can distort research.¹⁹ Despite this, the original research makes an important contribution to understanding the role of education in relation to its surrounding contexts.

2.4 Beyond basic education

In spite of the primary education focus of the MDGs, not only does the academic and policy literature look beyond basic education, but donor agencies and governments are funding more than just basic education; this, despite many of them claiming to lay their main emphasis on the basic education sub-sector.

In contrast to the international agency priorities of the last 15 years which have focused on primary education, particularly because of the salience of the Jomtien and Dakar World Conferences and the MDGs, Ministries of Education must plan for holistic systems of education which integrate secondary education, technical and vocational education, and tertiary education into a coherent entity. This may be particularly difficult to do in very aid-dependent countries. But recent global policy papers, such as the UN Millennium Report (2005a), would suggest that the achievement of the MDG for primary education will not be possible unless very large numbers of poor parents perceive for their children pathways and opportunities for continuation beyond basic education on the basis of merit.

Indeed it is interesting to note that as early as 1980, the Bank was warning that the case for primary education should not imply a sudden change in policy towards other subsectors; there needed to be a balance within the education system:

¹⁶ This UNESCO report, on gender, uses the Lockheed et al research, which never made any specific claims about *female* education and agricultural productivity, to argue the case for the importance of female education.

¹⁷ The referencing of Lockheed, Jamison and Lau appears in the original.

¹⁸ This World Bank Policy Research Working Paper in Education and Employment by Martin Weale – a product of the Education and Employment Division, Population and Human Resources Department – was part of a larger effort in the department to establish the linkages between human capital investments and economic development (Weale, 1992).

¹⁹ Arguably, the Lockheed et al research findings have quite distinctly become a 'policy development narrative', a policy axiom. The 'development narrative' (cf. Roe, 1991) of education and agricultural productivity, that has become so oversimplified that it has become inaccurate, has nonetheless been very important in setting and justifying educational policy in developing countries and international agencies (King et al, 2005).

Renewed emphasis on the importance of primary education, its high returns relative to secondary and higher education, should not start the pendulum swinging too far in the other direction. High levels of knowledge are necessary for many people who serve the poor, both directly as teachers, health workers and agricultural extension workers, and indirectly as researchers, technicians, managers and administrators....[t]here is for some purposes no better or cheaper substitute for the formal disciplines of conventional schooling (World Bank, 1980a: 49).

Arguably, this warning – at a point when the Bank was for the first time strengthening the research base for its policies in education – was very timely, because there would be a tendency in later years for primary education to be prioritised, largely due to its superior rate of return. But, whilst primary education may have given the highest rate of return at one particular point in time, expansion of this sub-sector has lowered the returns relative to other sub-sectors (see Chapter 4). The quality of primary education may be limited by the pool of post-primary graduates from which teachers can be drawn (e.g. Wedgwood, 2005). Lack of post-primary education and training opportunities can have a negative impact on the demand and retention rates at the primary level (Lewin, 2005). A sense of the crucial interdependency of education levels has sometimes been absent in Bank policies for education as well as with other donors. But it is precisely this dynamic inter-level influence between primary and secondary, or secondary and higher that we are pointing to in our analysis of the role of post-basic education in developing an enabling environment.

Interestingly, the World Bank, after many years of being identified with the promotion of particular sub-sectors of education in isolation, is increasingly being seen as urging that secondary education and tertiary education are part of what we are calling a ‘post-basic system’ that is essential for primary education to have positive outcomes (World Bank, 2001, 2002, 2005b).²⁰

It is important, therefore, for governments and agencies to view education and training systems in a holistic manner and recognise the need for a balanced education and skills mix in developing countries – while noting that this balance will be different according to a particular country’s social, economic and historical context.

2.5 Education, skills, poverty reduction, growth and equity – some key issues

2.5.1 Skills and the developmental state

While many developing countries have poverty reduction strategies, it may well be the case that their primary concern is for growth – and that the poverty reduction discourse is largely expounded as a means to access international development assistance that is so tied to poverty reduction targets. It has been argued (King and Palmer, 2006b) that none of the most successful cases of late industrialising countries, which have so dramatically succeeded in reducing poverty have done so by targeting poverty reduction exclusively. Rather they were focused on an overall

²⁰ Other donors, and notably Japan (MOFA, 2006), have also regarded secondary, technical and tertiary education as vitally important to the health of the whole education sector.

development policy framework. In this connection, it is worth noting that both of the latest comprehensive international development reports – the UN’s Millennium Project Report and the *Commission for Africa* – share the Asian view that the route out of poverty must follow a path of really major investments in physical infrastructure, market access, trade and technology policies, holistic education and capacity development, and the creation of an enabling environment for the private sector, in both rural and urban areas. The following chapter examines this tension between policies for poverty reduction and policies for growth in the specific country contexts.

2.5.2 The continuing challenge of reorienting training to the informal sector and the local economic environment

Publicly funded skills systems which in their very small size were historically relatively well adapted to the size of the formal sector of the economy, especially in Sub-Saharan Africa, find themselves today totally without the resources – or the vision – to re-orient themselves to providing an option for the poor workers in the rural and urban informal sectors. In many developing countries, public sector skills providers are largely disconnected from the labour market. Training is largely orientated towards formal sector waged employment in larger modern firms, and not geared towards the predominant destination of most graduates – the small and micro-enterprise (SME) sector, usually in the informal economy. The skills required to successfully start-up and run SMEs (especially in the informal economy) are very different from the types of skills required to work in a formal waged job. Teachers and instructors in most existing training centres do not possess the skills or experience in SMEs to be able to teach students how to operate in this area. Public vocational training providers are notoriously sluggish at responding to labour market demand, and where changes do occur, the market has often already moved on. Industry needs to be very much more involved, and regular labour market surveys need to occur, to inform the design of curriculum and the overall strategy of public training institutions.

2.5.3 Skill and knowledge for a dynamic environment

Basic education is conceived as education and training necessary to provide a basic set of life skills but the range of skills that this should include is a contentious issue and is highly dependent on the context, which is rapidly changing. Skills such as the ability to use information communications technologies and scientific literacy are becoming more important even in rural communities. This is discussed further in Chapter 4.

For developmental skills beyond the basic needs, there remains the issue of whether general academic education or training in specific occupational skills best equip individuals to contribute to poverty reduction and economic growth. Evidence suggests that public TVET programmes are often more expensive and less in demand, from both potential trainees and employers, than general academic education (see Chapter 4). Developing countries find themselves with small, under-funded systems oriented to specific occupational skills, while the donor discourse has moved on to talk of flexible skills for the global knowledge economy. Education and training systems need to take into account the rapidly changing nature of the transformative context, in which specific occupational skills may rapidly become obsolete and where the ability to learn new skills may be more critical.

2.5.4 Access to skills by the poor – the challenge of the market

States that have experienced structural adjustment, liberalisation, and marketisation, and are persuaded that the skill development system should be ‘demand-driven’, will find it extremely difficult to identify a demand for education and training coming from the poorest and most vulnerable sections of society. The slow growth of formal employment opportunities and the high and/or increasing levels of poverty in many developing countries, especially in rural areas (resulting in a slow growth in the number of people with reliable salaries), mean that their economies operate as income-constrained markets, and people’s buying power is weak overall. This restricts not only overall demand for products and services, but reduces the demand for training to improve quality since the market could not purchase better quality, more expensive, goods and services anyway. Furthermore, in many developing countries, the poor are usually engaged in survival enterprises, more concerned with the next harvest or with keeping their enterprise afloat, than with investing in training for long term development.

2.5.5 Social composition of education and skills training systems

Left to the market, education and skills training systems will tend to favour the non-poor. There is nevertheless a strong case for analysing the social composition of national education and skills systems. It is almost certainly true that many more programmes are claimed to be ‘pro-poor’ than are serving the poor in reality. Public sector skills programmes usually exclude the poor, either through direct or opportunity costs or through lack of places in these institutions. Skills programmes that are usually considered pro-poor, such as traditional apprenticeship training, may well not be easily accessible to the poor since training fees are usually charged. It would be a fair assumption that long-term poverty reduction strategies require a mix of targeted pro-poor educational provision plus general improvements in education for all.

So a rather fundamental question is whether the children of the poor are even to be found in the various types of education and training provision, whether school-based, post-school, enterprise-based or informal economy-based. Data sets for formal education are available but there is much less data on the social composition of skills provision, especially within the informal sector. The substantial cost of most skills training would suggest that the children of the poorer families are unlikely to be well represented. This perspective suggests that a precondition to discussing whether skills training institutions impact on the poor is to know whether the children of the poor actually reach such post-basic institutions at all. Our working assumption would be that without subsidies, talent scholarships and other incentives, the bright poor may well not access PBET training systems in significant numbers. Research findings on who gains access to different forms of education and training are discussed in Chapter 4.

2.5.6 From skills development to skills utilisation: the role of the enabling environment

The context of utilisation is highly dependent on supportive environments, and these are clearly different in dynamic and less dynamic economies. What can be said with certainty is that the good quality of the education and training environment is a crucial precondition for effective utilisation of skills in the wider economic environment (see Chapter 5 for a discussion on this).

Both the *Commission for Africa* and UN Millennium Report take the view that single sector interventions – whether in education, training, health or enterprise – will have a limited impact. Substantial change will only come when governments, with donor support, invest across the board to produce an enabling environment for both public and private sectors. The implications of this for the specifics of education and training reform are demanding. Under what circumstances will education and training reform have a powerful impact when these other complementary sectoral investments are not in place? Part of this comprehensive vision must be that employability and productive capacity need to be linked to the provision of education and training; otherwise training will be perceived as another aspect of service delivery. This argues for a much greater need to analyse whether the many shorter and longer term programmes aimed at entrepreneurship and employment do actually result in these outcomes.

Chapter 3: Poverty, Skills and Development

Summary and Core Issues

- Addressing poverty has become central to developing country policies. Understanding the nature, meaning and incidence of poverty in a given country context is vital to ensuring that strategies are targeted at the poor.
- Poverty is multidimensional, and popular perceptions of poverty extend well beyond income to access to services and opportunities.
- National development policies appear to be focused more on economic development than poverty reduction; specifically pro-poor strategies are not self-evident within these policies.
- Poverty strategies have led to a stronger focus on basic education, but national governments are emphasising tertiary education to support wider socio-economic development. This has led to some tension between national governments and donor agencies.
- There is a disconnect between the integrated approach evident in policies such as the Poverty Reduction Strategy Papers (PRSPs) and Education Sector Support Projects (ESSPs) – an approach strongly supported by the international donor agencies – and actual investments (and funding) which tend to focus on particular sub-sectors.
- The implementation of a coherent sector strategy which takes account of the entire sector may therefore suffer from a narrow focus on particular sub-sectors, such as basic education or tertiary education.

At the heart of current international development discourse, as captured in the MDGs, lies the worldwide consensus on the need to combat poverty. As we saw in the previous chapter, there is a complex series of potential interactions between education, skills and poverty reduction. The next three chapters draw out some of the core evidence from our six country studies to develop our arguments about the importance of the enabling environment to ensuring that education and training do have an impact upon poverty. This chapter addresses three main issues. Firstly, we consider how poverty and poverty reduction are perceived within the different contexts of our sample countries; and how education and skills are perceived in relation to poverty. This illustrates how understandings of poverty encompass much more than income poverty, but extend to quality of life and access to social services and opportunities. It also shows that poverty is understood in different ways across countries. Secondly, we explore the relationship between education and skills and poverty within national policy environments, in particular considering the interface between policies for poverty reduction and for economic development. Thirdly, this chapter assesses the role of external donor agencies in national policy, highlighting differences in the emphasis laid by national governments and by donor agencies upon sub-sectors of education and training. From this we can see that despite the international focus on basic education, both governments and donor agencies appear to be taking a more holistic approach. However, in practice, while holistic *policies* may be in place, particular sub-sectors of education and training receive more attention than others in practice. On the donor side, this tends to be basic education, but national governments appear to be placing greater emphasis on secondary and tertiary education.

3.1 Poverty and the poor in the national contexts

Understanding the nature and incidence of poverty in national contexts provides a key basis for assessing the relationship between education, skills and poverty. An initial task within the country studies was to explore poverty within each setting.

Within international development literature and policy we see two major trends with regard to defining and measuring the concept of poverty. On the one hand there is a reasonable consensus (at least among policy-makers and development agencies) on the importance of a *multidimensional* understanding of poverty that recognises the complex inter-relations between social and physiological aspects (see Shaffer, 1998; Thin, 1999; World, Bank 2000). Elaborate systems have been established which seek to capture these multiple dimensions, such as the Human Development Index and the Human Poverty Index (UNDP, 2005a). On the other hand, in policy and practice there is a tendency to categorise poverty simplistically in terms of the minimum income required to satisfy basic needs (food, accommodation, services), i.e. income poverty. This is often reduced to measuring the population living on less than \$1 or \$2 a day. While this measurement may indirectly take into account various aspects of poverty, it can become a simplistic label which obscures interesting nuances in how poverty is perceived in different countries.

For example, the Indian government defines poverty on the basis of consumption expenditure, based on a regular National Sample Survey to establish expenditure required to purchase a basket of goods to satisfy minimum calories required. This basket of goods includes food, fuel and light, housing, clothing, footwear and miscellaneous items. In Ghana, poverty is defined as “an unacceptable physiological and social deprivation” (GoG, 2003a: 3), recognized as “multi-dimensional with complex interactive and causal relationships between the dimensions” (ibid.) In Rwanda, a participatory poverty assessment (PPA) established an elaborate system for categorising poverty which was outlined in the Poverty Reduction Strategy Paper (PRSP) (see Box 3.1). Yet, elsewhere in national policy, much more simplistic categories are used; it is more common in statistical analyses to divide the population into three categories of ‘very poor’ (or ‘extremely poor’), ‘poor’ and ‘not poor’ (GoR, 2002a: 18), categories which are closely equated with expenditure and consumption patterns and which follow international conventions of establishing a food and an overall poverty line based on the cost of purchasing a basket of foods, satisfying reasonable calorie and protein requirements as well as providing non-food items as in the case of India above.

Box 3.1: Country Definitions of Poverty

Poverty Assessment exercises in Rwanda and Tanzania revealed very interesting and highly nuanced local definitions of poverty. In Rwanda the Participatory Poverty Assessment conducted in 1999 divided households into 6 categories:

- *Umutindi nyakujya* – those in abject poverty
- *Umutindi* – the very poor
- *Umukene* – the poor
- *Umukene wifasgije* – the resourceful poor
- *Umukungu* – the food rich
- *Umukire* – the money rich

For each of these categories particular characteristics are observed. These view poverty primarily in relation to economic and social factors – access to land and livestock, considered to be the main assets of households, access to paid employment, and access to education and healthcare. These definitions imply that access to social services is determined by a household's economic status above all else.

In Tanzania, two terms are used to define poverty:

- *Umaskini*, which has a broad meaning, going well beyond financial poverty to imply a lack of ability to utilise resources as well as a sense of being unfortunate and deserving pity.
- *Ufukara* refers more specifically to lack of income, or lack of basic needs, but is less commonly used than *umaskini*.

Poor people are generally characterised by communities as those who can only afford to eat once a day, have few or no possessions, cannot afford health services and are often sick (Narayan, 1997).

However, we need to recognise that how the international community conceive of poverty may be a long way away from how people actually think of themselves. For instance, Malawi may be classified by official figures as a country where 65% of the population of some 14 million are beneath the poverty line, and Kenya has been analysed as having 53% of its rural and 50% of its urban populations under the Kenyan statistical office definition of poverty (GoK/Central Bureau of Statistics, 2005). But whether those who have been determined as poor think of themselves as such is an entirely different question.²¹ For instance, the term 'chronic poverty' has been applied to a series of research initiatives supported by DFID. One of these has been located in Kenya, and yet for a very large number of Kenyans, the very notion of 'chronic poverty', or long-term, almost inescapable poverty, is not socially acceptable. There is a very powerful popular tradition of believing that "poverty does not have deep roots" and that therefore "wealth creation is in everyone's hands".

²¹ The World Bank *Voices of the Poor* study tries to bring out definitions of poverty from poor people around the world (see Narayan, Patel, Schafft, Rademacher, Koch-Schulte, 2000; Narayan, Chambers, Shah, Petesch, 2000; Narayan and Petesch, 2002). Arguably, the results are still an external construction of in-country poverty levels and gradations.

A similar situation prevails in Tanzania where there appears to be a difference in attitude to those classified as ‘poor’ and those classed as ‘very poor’ in the report on the World Bank’s PPA (Narayan, 1997). Whilst the poor are looked on with great sympathy as hardworking folk who remain poor in spite of their labours, the very poor are looked down on as those who are poor by choice, stupid fools who rely on others and are not engaged in any productive activity themselves. There is little sympathy for those who simply rely on others for their needs, as expressed by the Kiswahili proverb: “*Mtumai cha nduguye hufa hali masikini*” (One who relies on his relatives will die poor). The very poor category also tends to include the mentally or physically disabled. PPAs and other surveys have consistently found that people consider poverty to involve much more than simply whether a person has money or not (GoURT/ RAWGPM, 2004). When asked what one needs in order not to be poor, answers included material wellbeing, bodily wellbeing, social wellbeing, security and freedom of choice. Research into the views of children and youth about poverty (Massesa, 2004) found that they associated being poor with lack of money to buy basic things, lack of food, shelter, clothes, medical care, not being able to go to school at all or getting a poor education. Box 3.2 highlights popular perceptions of poverty in relation to education and employment.

Across the countries studied, similar patterns in the incidence of poverty can be observed. The most obvious of these is the rural-urban disparity in poverty²² with a much higher incidence of poverty in rural areas in all the countries studied. But the country studies also showed considerable regional differences within countries. For example, in Ghana levels of extreme poverty are worst in the rural and urban savannah areas, at 59% and 27% respectively, and in the rural coastal areas (26%). Another similarity is in the high incidence of poverty amongst women and agricultural workers. In Tanzania, for example, poverty was more prevalent among female-headed households as female heads tended to have less land and less education. However findings also indicated that women were more likely than men to engage in income generating activities such as trading or piecework. In Rwanda, consumption – or income – poverty is highest amongst those households whose main activity is agricultural, with poverty levels higher among those who are reliant on agricultural wage labour than those who are farming on their own account. Indeed, 94.4% of the poor fall into this category (GoR/Minecofin, 2002: 8). Likewise in Ghana, poverty appears to be “primarily an agricultural phenomenon and largely in the informal sector” (GoG, 2003a: 28), with poverty highest among food crop farmers.

²⁰ In India, the poverty line is actually defined separately for rural and urban areas, and for different states, reflecting differences in purchasing power across the country.

Box 3.2: Popular Perceptions about Education, Poverty and Employment

In Kenya, the Kericho Report of 1967 observed that a very significant proportion of children identified lack of education with negative mobility. Most succinctly, this was expressed as follows: “A man without education is always poor, jobless and a thief” (Koff, 1967: 396). Farming came low on the list of jobs pupils would prefer to do.

In Tanzania, lack of education is rarely cited by the poor themselves as a cause of their poverty. In many surveys, respondents have tended to focus more on tangible, material causes of poverty, such as lack of land, lack of access to credit, lack of farm inputs. The PPA (GoURT/RAWGPM, 2004) gives cultural beliefs and practices as a major class of impoverishing force. It points out that low levels of education reduce an individual’s capacity to combat discriminating customs. Social capital at the village level was found to be closely correlated with household expenditure, more so than education levels. Education was seen as desirable but as something that only the non-poor could aspire to, with secondary education being seen as the domain of the rich. However, the fact that people rarely give lack of education as a major constraint should not be interpreted as implying that it is not a constraint in practice.

A participatory poverty assessment conducted in South Africa in 1997 found that poor people saw their poverty in terms of lack of community and family networks; food insecurity; crowded homes; lack of safe and efficient energy sources; lack of decent work; and family fragmentation (May, 1998). The 2005-2006 People’s Budget highlights seven indicators of poverty: inadequate access to physical assets; low productivity of the assets accessed; inadequate incomes due to un- or under-employment; inadequate social grants; underdeveloped human capabilities (deriving from education, skills and health care); exclusion from participation in decision-making; and weak economic participation (COSATU, SANGOCO and the SACC, 2004: 8).

Beyond these similarities, it is also important to note the differences in the incidence of poverty. By this, we mean the historical and social factors which contribute to making each country distinct from the others. For example, poverty and inequality in South Africa are strongly determined by the historical legacy of the colonial and Apartheid era. In 1999, 95% of poor people were African, though Africans were only 79% of the population as a whole (Gelb, 2003: 5); malnutrition is also much higher amongst the African population. This profile is now beginning to change with increased numbers of rich Blacks and poor Whites (Whiteford and Seventer, 2000); so racial determinants of poverty are now giving way to class divides. Tanzania’s history of pro-poor, socialist policies is purported to have made a difference; although many families live in poverty, a lower proportion live in absolute poverty than in countries of comparable GDP and Tanzania’s relatively high adult literacy helps maintain its position in world ‘league tables’. Rwanda also constitutes an illuminating example. Differences in poverty levels across the regions of the country can be attributed to geographical and ecological factors such as soil fertility and prevalence of drought, but also to the fallout from Rwanda’s recent history. The north-west of the country, which is the most fertile, remains one of the poorest areas as it has been the most affected by conflict. Other parts of the country were particularly

devastated during the genocide and have a higher incidence of female or child-headed households which are amongst the poorest. Indeed, the Government of Rwanda highlights how the country's 'context of poverty' (GoR, 2002a: 6) is linked to historical, structural, economic, environmental and demographic factors, exacerbated by the very specific legacy of the genocide and civil war, which in turn can partly be explained by these factors.

In Ghana, national statistics indicate that the number of people living in poverty is being reduced. While 52% of the population was considered poor in 1992, this had dropped to 40% by 1999. Extreme poverty was reduced from 37% to 27% over the same time frame (GSS, 2000: 22). Nevertheless, some 27% of the population were unable to meet their basic nutritional needs even after spending their entire consumption budget on food (GoG, 2003a: 16). However, the national statistics need to be read with caution. While poverty was reduced most in Accra and the urban and rural forest zones, in the urban savannah regions poverty levels actually increased (Canagarajah and Pörtner, 2003: 61; GoG, 2003a: 13). Policies targeting particular groups also appear to be bearing fruit in Ghana. For example, although the incidence of poverty among export farmers is high at 39%, since 1991 this group has experienced a 25% reduction in poverty – put down to policy efforts to promote growth of non-traditional exports.

In India too, there is evidence to suggest that poverty levels are dropping, although we should be wary of statistics which place people above or below a particular line. As the India case study notes, "not all those who live above the poverty line are necessarily rich. There is a sizeable stratum of population just above the poverty line struggling to stay above it." (Tilak, 2005: 16). Moreover, although the percentage of the population living below the poverty line declined from 55% in 1970-71 to 26% in 1999-2000 (ibid, fig 4), in absolute numbers only 40 million people moved out of poverty with 260 million remaining below the poverty line of which the vast three-quarters are rural dwellers.

A final issue we wish to flag up in this discussion of poverty is the distinction between poverty, vulnerability and inequality. Overall poverty statistics for a country may not capture the degree to which people are liable to fall in and out of poverty. So-called 'pro-poor' strategies may help reduce the vulnerabilities of the poor, but poverty reduction also entails efforts to minimise the numbers of non-poor who fall into poverty. In most of our countries, the question of inequality was highly salient, particularly in India and South Africa. In both these countries – and arguably in all of our countries – there is evidence of stark dichotomies, where, for some, there are high rates of growth, thriving modern economic activities, good services, etc. but where much of the population is left far behind, struggling to survive without access to services or opportunities. Indeed, in South Africa inequality is amongst the highest in the world. This is very important to our study as the opportunity for people to use education and skills to lift themselves out of poverty is not equal; and it is the poorest and most vulnerable who face the greatest struggle to transform their lives. Understanding the nature of poverty in the country is central to any strategy to target poverty through education and training at all levels. Likewise, understanding the very specific contexts is necessary for developing strategies and policies for addressing poverty through education and training, as the actual needs of individual countries and populations within those countries may differ from international norms.

3.2 Skills, poverty and economic growth in national policy

This study explores the question of the developmental impact of different levels of education and training, and the importance of viewing education and training systems in a holistic fashion. The evidence from our country studies suggests that a more integrated approach is being taken in the policy context. Several countries have developed sector strategies for the education sector, generally tied in with broader holistic socio-economic development strategies. In practice, however, the focus tends to be placed upon particular sub-sectors, with some areas largely neglected. This is often indicative of difficult choices which need to be made where resources are scarce, but also reflects the different objectives of national governments, which are sometimes at odds with donor objectives.

The shift in emphasis towards basic education under the poverty reduction agenda raises questions about the relationship between poverty reduction strategies and wider social, political and economic development. In much of the literature, sustained economic growth is seen as a prerequisite for poverty reduction in the long term (see Osmani, 2003). However, it is not self-evident that growth will automatically translate into poverty reduction (see Lustig et al, 2002; Pernia, 2002). For example, since the mid-1990s Tanzania has experienced steady increases in growth; yet it is unclear to what extent these increases in growth have been pro-poor. The literature would suggest that it is growth in rural rather than urban areas which is most likely to reduce poverty, but the increases in growth in Tanzania have been largely in the manufacturing and mining sectors. Consequently, there is potentially tension between the objectives of poverty reduction and economic growth. It does not necessarily follow that policies aimed at economic development will automatically bring about a reduction in the incidence of poverty, nor that policies aimed at reducing poverty will automatically bring about economic development. The South African study provides an interesting insight into the different orientation of policy for different goals. The government's vision sees growth in the formal (first) economy as vital to meeting overall development goals, while the development of the informal (second) economy is seen as key to poverty reduction.

Poverty has become a major focus within the national policy contexts of all our case study countries, particularly in the four countries which have developed Poverty Reduction Strategies as a means to access debt relief under the HIPC initiative (Kenya, Tanzania, Ghana and Rwanda). National policies for overall development as well as for education and training therefore mirror the international attention focused on poverty and the MDGs. However, the goal of economic development often stands out stronger than the goal of poverty reduction. Kenya makes an interesting example of this. In 1986 a report of the Kenya Government focused on *Economic Management for Renewed Growth*. Note that this does not stress 'Economic management for poverty reduction' but rather *for Renewed Growth* (GoK, 1986). This made it clear that the achievement of basic human needs would be dependent on growth. In 2003, the new Kenyan government produced a key policy text entitled the *Economic Recovery Strategy (ERS) for Wealth and Employment Creation 2003-2007*. There was apparently strong donor pressure to have this called 'for poverty reduction' but this was firmly resisted on the basis that economic growth was necessary for poverty reduction and employment creation. By contrast with 'poverty reduction', the ERS wanted to put an earlier vision centre stage – that of industrial catch-up: "Kenya can get no better deal than recapture the initiative we had at independence

with the aim of climbing to greater heights in development with the view of becoming part of the First World in the next twenty five years” (GoK, 2003a: v). A similar situation can be observed in Rwanda where the second Poverty Reduction Strategy is to be entitled *Economic Development for Poverty Reduction*, shifting the focus from poverty reduction *per se* to a specific strategy which aims primarily at economic development in the expectation of subsequent impacts on poverty.²³

The Kenyan example highlights the underlying aim of the government to strive for long-term development. This reflects the ‘Visions’ which have also been adopted in Ghana, Rwanda and Tanzania. These documents underpin the PRSPs but tend to lay out a broader strategy beyond poverty reduction to economic development. Within these, the connection between economic growth, poverty reduction, education and skills training plays a central role (see Box 3.3). However, such correlations go further back. In India, for example, the links were established between education and development in the Commissions of the 1960s and 1970s, with education seen to have an important impact on economic growth, poverty and well-being. Education was integral to development planning within India’s successive 5-year plans, most notably in the 1966 Education Commission which stressed the relationship between education and national development. Kenya’s first national education policy statement, dating from 1964, underlined the fact that development did not just mean economic growth but also poverty eradication. And long before PRSPs, Tanzania was putting poverty reduction at the heart of its development policy. It was there in the first five-year plan of 1964 (Evans and Ngalewa, 2003) and was central to Nyerere’s policy of *Education for Self Reliance* (Nyerere, 1967).

Hence, we can observe a clear recognition in policy of the importance of quality education and skills to both poverty reduction and economic development, one which has become more explicit with the adoption of integrated national development strategies. Poverty Reduction Strategies recognise the importance of all sub-sectors of education and training to achieving broader development goals. They also recognise the importance of looking beyond narrow sectoral policies to ensure collaboration amongst ministries in areas of mutual interest. This approach can be seen in the Education Sector Strategies established in Kenya and Rwanda (see Box 3.4).

Having a coherent sector strategy does not necessarily prevent greater priority being placed on particular sub-sectors, however, sometimes to the detriment of others, as the Rwandan example illustrates (see Box 3.5). This reflects a broader tension between objectives. As noted above, there appears to be a trend towards emphasising economic development above poverty reduction within the new generation of PRSPs. In general, the poverty reduction approach has seen policy veering towards basic education (see Bennell, 1999; Cailloods, 2003). For example, Kenya’s Master Plan on Education and Training 1997-2010 (1998) signals a shift from a preoccupation with employment to the beginnings of a poverty discourse applied to education and training (GoK, 1998). The poverty focus brought a new understanding into the analysis of the declines in quality, but the shift away from the concerns with employment and informal sector was paralleled by a preference for general education and life skills rather than work-related skills in school. In the *National Poverty Eradication Plan, 1999-2015*, the focus on education is exclusively primary education (GoK, 1999: 39). A similar trend can also be observed in India.

²³ Speech of Rwandan Ambassador to the Scottish Parliament, Edinburgh, 24 May 2006.

Box 3.3: Education, Skills and Poverty Reduction in Tanzanian Policy

In Tanzania's National Poverty Eradication Strategy (GoURT, 1998), lack of education was not seen as a major cause of poverty, nor were low education levels seen as a challenge to poverty eradication. However, Tanzania's Vision 2025 considers education to be an important agent for change. It outlines the need to expand primary education for poverty reduction but also the need for improved and expanded tertiary education in order to generate the growth and capacity needed for long-term development (GoURT, 1999). In the consultations for the first PRSP, education was ranked as one of the top priorities for poverty reduction with main concerns of access to and quality of primary education. The interim Poverty Reduction Strategy Paper (GoURT, 2000a) called for higher education to be rationalised and spending on primary education to be maintained at 65%. In the PRSP itself (GoURT, 2000b) the main focus of the proposed action was at primary level, with the dropping of school fees being one of the most significant policy changes. In the PRS II consultations (GoURT, 2004), education had a much higher profile than in the PPA carried out in the previous decade (Narayan, 1997). Firstly, primary education was unanimously seen as an area of positive achievement of the last three years. One of the challenges to poverty reduction was seen as poor human resource quality, implying a need for more quality education at the post-basic level.

Box 3.4 : Education Sector Strategies in Kenya and Rwanda

Kenya's Education Sector Support Programme (KESSP) for 2003-2007 takes a wide lens on education and training, including all sub-sectors. It has managed to balance the need to expand and revitalise the secondary, TIVET and even the public university system with the hugely important requirement to chart out generous yet transparent pro-poor pathways. The KESSP aims for a great deal more than Free Primary Education. Three of the main goals were concerned with post-basic education and training, and, of these, two were explicitly concerned with the link to the wider economic environment (GoK, 2003b: ix).

Rwanda's Education Sector Strategic Plan for 2003-2008 takes an integrated approach, bringing together the key ministries involved in education and training (Education, Labour, Local Affairs and Finance). It has three key strategies: the basic education strategic framework; secondary education strategic framework; and the higher education strategic framework (GoR/ Mineduc, 2003b). With additional resources flowing to the education sector, the update of the ESSP for 2005-2010 has placed new emphases on basic education beyond primary (lower secondary, adult education, pre-school) and called for the development of a comprehensive PBET framework (GoR/Mineduc, 2005).

Each of the five-year Plans has emphasized different education sectors but by the 1990s, poverty as a focus had entered the equation. The latest 5-year plan for 2002-2007 aims to reduce poverty by 5%, and by 15% by 2012. Although education is not specifically planned within this policy as important to reducing poverty, primary education figures in the minimum needs programme; secondary and higher education do not figure at all.

Box 3.5: Prioritisation of Education and Training in Rwanda

Since 1998, poverty reduction has lain at the heart of Rwanda's development policy. Basic education has been made a priority, with a commitment to providing nine years free education to all children. This has attracted significant support from donors for a wide range of activities in the education sector, including institutional support to develop a sector-wide approach in education. However, a closer look at the actual financing of the education sector reveals that the majority of resources have been focused on two sub-sectors – primary and tertiary. There has been very limited investment, either from the Government or donors, in pre-primary, upper secondary, skills training or informal education.

This reflects the Government of Rwanda's (GoR) broader medium and long-term interests. Poverty reduction imperatives, captured in the PRSP, call for investment in primary education and much donor support has been oriented in this direction. A more in-depth exploration of the GoR's development policy reveals that it is looking well beyond basic education, and beyond poverty reduction, however. Education and training are expected to fulfil two core objectives: to contribute to peace and reconciliation; and to transform the Rwandese people into human capital for development. The long-term vision of the GoR is for Rwanda to become a service hub in Central Africa which requires substantial attention to PBET to develop a sufficiently skilled population to generate the resources to sustain and develop the country.

The GoR appears torn between its commitments on basic education and pro-poor development, and its desire to invest at higher levels and in more technology-based subjects. Rwanda's limited resources mean difficult choices have to be made between the desire to increase access, the impact this would have on quality, and the human and material resources required to finance the system. External financing is the main option which has led to some tensions over the core objectives of donors in comparison to those of the GoR. For example, 37% of the education budget was allocated to tertiary education between 2000 and 2003, leading to criticisms from donors. This proportion is now falling, however, and there are plans in place to expand support for other sub-sectors of education and training.

Source: Hayman (2005); Hayman (2006)

However, while the focus on basic education reflects the international commitments made at Jomtien and to the MDGs with their focus on poverty reduction, expanding post-basic education, and particularly tertiary education, is very important for many developing country governments. This tends to reflect longer-term economic development objectives. South Africa, for example, formally aligned itself with the Jomtien Declaration in 1995 and has enshrined the

right to basic education in its Constitution. The existing policy directions of the Department of Education make clear four issues of priority regarding basic education and, hence, the educational MDGs: a strong commitment to early childhood development; a restatement of the importance of adult basic education and training; a commitment to improving access, most notably through a plan to ensure that education is genuinely free for the poorest through the development of a Basic Minimum Package; and a continuing focus on improving the quality of teaching and learning. However, the main education and training focus of the Programme of Action (GoRSA, 2004) is at the post-basic level. This is more concerned with the overall goal of the reduction of poverty than on the narrower challenge of the achievement of basic education. It is primarily oriented at developing skills and knowledge amongst the majority of young South Africans with a view to greater market relevance of education and training (Akoojee and McGrath, 2005).

A similar situation can be observed in Ghana, where the PRSP has a distinct focus on basic education. However, the Education Strategic Plan (2003-2015) takes a more holistic view of the education system. While the EFA targets are important “the Government and the Ministry are committed to a whole-sector development approach, i.e. a sector wide approach (SWAp), in which every sub-sector and every area of focus within the education sector is considered” (GoG, 2003a: 11). This is particularly apparent in the White Paper of 2004 which focuses more on post-basic education, proposing also the vocationalisation of secondary education (see Box 3.6).

The above discussion demonstrates that concerns with both expanding access to basic education and taking a more holistic approach to education and skills for poverty reduction and socio-economic development have been taken seriously within national policy environments. However, there are questions about the real depth of commitment of developing country governments to implementing these policies fully,²⁴ particularly in the interests of the poor. As we have seen above, governments appear to be focusing primarily on basic and tertiary education. Skills training, particularly for the informal economy, seems to be especially neglected in the PRSPs (ILO, 2003). Indeed, our studies demonstrate the absence of specifically pro-poor orientation within skills development policies. There appears to be a much greater interest in vocational training achieving a better link with the formal sector labour market, and consequently making a contribution to economic growth, than with improving the employability of the poor, most of whom are active in the informal economy. Vocational training in particular is not presented as being a critically important investment priority at all, though there is some strong evidence that this may be changing, especially in Africa.

A similar trend is evident with regard to secondary education. Although policies are being developed specifically aimed at expanding secondary education, e.g. the SEDP launched in Tanzania in 2004 and the recognition in Kenya’s *Sessional Paper* that secondary education required attention (GoK, 2005: ix), there is very little about access to secondary education for the poorest children. For example, Kenyan poverty policy recognises the problems of drop-outs from schools, the burden on parents from charges on primary education, and the high cost for parents for secondary education. Although it is recognised that the majority of parents cannot

²⁴ The Kenyan study provides a clear indication of this, where there has been little policy continuity over the last 40 years. Considerable resources have been devoted to expanding education at all levels, and the availability of a well educated and trained workforce has been considered critical to the success of Kenya’s industrialisation strategy (GoK, 1996); yet, there is no detailed commentary at all on the quality of this huge investment in human resources over the past 40 years.

Box 3.6 : Ghana's New Education Reform

In 2004 the Government of Ghana (GoG) came out with a White Paper on Educational Reforms (GoG, 2004) which outlined the proposed reforms for the education and training system due to commence in 2007. This reform came about due to the persistent high levels of youth un- and under-employment and the belief that something must have gone wrong with the education and training system to have caused, or at least not solved, the youth employment problem. The previous education reforms of 1987 – which were intended to equip the youth with directly employable skills for the world of work through a vocationalised junior secondary school system – have been deemed a failure by many in the GoG. Moreover, the new reforms are meant to put in place a second-cycle system that better caters for the majority of youth (c.60%) who complete basic education and do not continue to formal senior secondary education. The major proposals in the reform include:

- Universal and compulsory basic education will be extended to include two years of pre-school teaching, extending 'basic education' from 9 to 11 years.
- At the primary level fewer subjects would be taught so that grounding in the basic skills – literacy, numeracy, problem-solving skills and creative arts – would be improved.
- The present junior secondary system, that includes – in theory, but frequently not in practice – an element of pre-vocational and pre-technical skills training, will be discontinued. In place of the junior secondary will be the renamed 'Junior High School' (JHS), with a more general, comprehensive curriculum. The government intends that the JHS should not be like the present junior secondary "which served as a terminal programme for most pupils... [but] should become the entry stage" (GoG, 2004: 5) to further post-basic education and training in the new diversified system of Senior High Schools or in a new system of structured apprenticeship.
- Senior secondary will be renamed 'Senior High School', extended from three to four years, and diversified into four streams: vocational, technical, agricultural and general education. It is the decision of the government "that the Senior High School system should be organised both as terminal education for entry into the world of work, and as a preparatory stage for entry into tertiary education" (GoG, 2004: 8).
- The government intends to partner with the private sector to promote more formalised apprenticeship training programmes, with government assuming 'full responsibility' (GoG, 2004: 9) for the first year of the programme. Related to the new education reform is the new Technical and Vocational Education and Training (TVET) Policy (GoG/MoEYS, 2004b) which is meant to complement the White Paper and to reform skills training in Ghana and to dramatically expand the formal TVET sector.
- By 2015, all levels of education are to be staffed by professionally trained teachers.
- Factors critical to the successful achievement of the proposed education reforms include: training sufficient teachers to staff all levels of education; effective decentralisation of responsibility for provision and management of primary and second cycle schools to the districts. District Assemblies would be responsible for providing equipment and infrastructure to all basic schools.

Source: Palmer (2005)

afford to send their children to secondary school (GoK, 2003c: xxii), there is limited discussion of pro-poor pathways from primary to secondary. This reflects wider concerns that the commitment to poverty reduction of many developing country governments may not be particularly deep (Bennell, 1999; Commission for Africa, 2005; King, 2006).

3.3 External financing and education policy

Access to external financing has been a large determinant of the thrust of national education policies in the poorest countries since the 1990s in particular. Under the poverty reduction agenda new resources have been made available for education and more donor agencies have become involved in this sector. This includes supporting policy and planning, where donor voices may exert considerable influence.

In Tanzania, Ghana and Rwanda, donors play a very significant role in financing investment in the education system. In Rwanda, over 97% of the education development budget draws on external resources and a very large number of donors provide support to the sector. In Ghana, before the education reforms of 1987, few donor agencies were involved in the education sector; subsequently, a large number of bilateral and multilateral agencies have provided support.

These include bilateral agencies such as DFID, USAID, GTZ and JICA, as well as multilateral bodies such as the World Bank, AfDB, UNICEF, UNESCO and the EU. In total in Ghana it is estimated that “aid contributes somewhere between 5% and 15% of the total resources available to education” (DFID, 2005: 10). Since 1989 over 90% of government expenditure has gone into salaries, leaving very little for administration and investments (i.e. books and buildings). Hence, donors have played a large role in supplying the investment, non-wage, part of the education sector spending. The same is true of Tanzania. In the mid-1990s, the donor share of educational spending represented a mere 6% of the total government spending on education (World Bank, 1999a). In the late 1990s there were over 50 Western consultants working within the Ministry of Education and, in the absence of strong local leadership, they had a high degree of control (Holtom, 2003). And donor presence in the education sector in Tanzania is increasing. Donor support to education is now done largely through basket funding which goes towards both recurrent and development costs but is currently targeted at the primary sub-sector through PEDP. In the financial year of 2002/2003 foreign support to education accounted for 40% of spending on education (GoURT/MoE, 2003).

As mentioned above, Ghana, Rwanda and Kenya have all adopted some form of education sector strategic plan. These have been developed with considerable external support; yet, donors have tended to focus their attention on particular sub-sectors of the system and the implementation of the sector plans has been patchy with uncoordinated activities often draining government capacity. In Rwanda, for example, despite donors and the Ministry of Education agreeing in principle to work within the framework of the Education Sector Strategic Plan it would appear that donors are still offering support to the education sector outside of this framework, and the Ministry tends not to refuse. The Ministry will also negotiate support if it feels that the aid on offer does not suit its purposes. An example of this would be Belgium offering support for primary education, but the Ministry insisting rather on support for secondary education. The compromise reached was that Belgium would support science teaching in lower secondary.

In parallel, donors have also exerted pressure on recipient governments to prioritise specific areas. In recent years this has been primarily basic education. In Ghana, for example, DFID allocates about 80% of its aid for education to basic and primary levels (DFID, 2000: 36). For example, the Education Sector Support Project (ESSP) (1998-04) – UK £50 million – was targeted at the primary sub-sector. Similarly, the new DFID education programme, the Support to Education Strategic Plan (SESP) (2005-2009) (DFID, 2004a; 2004b; 2004c) – UK £50 million – has as its goal the achievement of the education MDG within Ghana (DFID, 2004b), and hence support is targeted at basic education (primary and JSS levels). During the education reforms of 1987, the World Bank persuaded the GoG not to expand secondary education too quickly but to concentrate on basic education. In 1990, a government overspend on tertiary and vocational education – at the expense of basic education – led to tensions with the Bank (World Bank, 2004c: 20, 188). These tensions continue with the possibility of donors withholding financing for education or adding conditions to a multi-donor budget support mechanism in the face of GoG desire to prioritise post-basic education and training.

A similar story emerges in Rwanda. A large number of bilateral and multilateral donors are active in the education and training sector here, as well as several international NGOs. The UK, World Bank and UNICEF are the main actors involved in education policy, although Germany and Belgium also play an important role. Since 2000 DFID has provided substantial support to the Rwandan education sector, including provision of a large team of education advisors to the Ministry of Education. This team provided considerable input to the Rwanda Education Sector Support Programme (RESSP), launched in June 2001. In dialogue with the Government, both the UK and World Bank have sought to encourage the Ministry to pay greater attention to basic education (see World Bank, 2004b). Other donors such as Sweden and Belgium, have also demonstrated signs of orienting more resources towards basic education, and there has been a progressive decline in support for sectors such as vocational training.²⁵ Although the RESSP covers all sub-sectors of education and training, in practice donors are primarily supporting institutional development, basic education and tertiary. Pre-school, secondary and vocational training have received only limited support.

In Tanzania, too, donors have focused their attention particularly on basic education, with very considerable involvement in the recent efforts to get all children into primary school through the Primary Education Development Programme (PEDP).

Secondary education and TVET have had the least attention paid to them by donors, although this was not always the case. For example, in Tanzania it is reported that the majority of donor educational aid in 1993 went to vocational training (Dar, 2000), but since then many donors have phased out this support. Sida, which was one of the main actors in the sector, has reduced the overall share of its educational spending on the vocational training sector from 13% in 1990 to 2% in 2000 (McNab, 2003). It phased out its funding of VETA in 1998 (Bennell, Bonde et al, 2002). Other donors like GTZ, Irish Aid and JICA have phased out support for VETA. The World Bank's support to Africa for vocational education and training has shown a marked decline since the mid 1990s (Samoff and Carrol, 2003). In 2001-2 TVET in Ghana received only about 1.2% of total education spending (GoG, 2003b: 6) despite the government consistently reiterating its desire to expand this sector.

²⁵ See Hayman (2007). For a detailed study of broader issues surrounding aid and donors in Rwanda, see Hayman (2006).

Nevertheless, external pressure does not necessarily determine government priorities in education. Examples of this can be found in Rwanda and Ghana. In Ghana the vocationalisation element of junior secondary schooling was very much a government desire that could not be curbed by donors. In Rwanda, there have been tensions between donors and the governments over the GoR's determination to channel resources into tertiary education and trilingualism in schools, and to expand basic education to include three years of lower secondary.

Moreover, there is often a contradiction between what donors *say* they prioritise and what they are actually supporting. This is particularly evident in the Rwandan case where a look at the actual activities of donors reveals that they are supporting a very wide range of activities, including school feeding programmes, infrastructure, ICT, curriculum development, teacher training, research, university study grants (GoR/ Minecofin, 2004b; Hayman, 2006). However, it also emerges in some other countries. As noted above, in Ghana the World Bank has been pressurising the Government vis-à-vis basic education. However, the Bank has also been supporting other sub-sectors such as community secondary schools, tertiary education and vocational skills and informal sector support in the 1990s. It is also supporting tertiary education under the new ESP (2004-09). In Tanzania the World Bank is the only donor supporting the secondary education development programme.

This situation demonstrates a disjuncture between the international focus on basic education in order to meet the MDGs and EFA targets, and the reality on the ground, and between the international agenda and national government objectives. Our studies demonstrate that poverty has become an important focus of national policy, but that there are very different ways of understanding poverty. It is important to have a clear idea of what we mean by poverty in a given country context in order to target the poor successfully. We also see that national governments have developed policies which are both poverty-focused and looking at longer-term socio-economic development. Within these, an integrated approach is being taken; Education Sector Strategies recognise the importance of considering all sub-sectors of education and training, and often look beyond the confines of the sector to consider factors which will allow education and training to have their desired impacts, i.e. the enabling environment. However, there continues, in practice, to be a skewing of resources towards particular sub-sectors – notably basic and tertiary education – with other sub-sectors receiving less attention. This situation needs to be rectified if education and training (both basic and PBET) are to have the desired impacts upon poverty and development.

Chapter 4: Research Evidence from Six Countries

Summary and Core Issues

- While rates of return to education estimates have traditionally shown that primary education provides the best returns, other recent quantitative estimates for returns to education, point to the importance of post-basic levels.
- Basic education in a world of more sophisticated technologies is not sufficient to prepare people for jobs. More education or training are required. The importance of basic education has shifted from preparing people for work to preparing people for higher levels of education, training and employment.
- In several of the countries studied, there is evidence of shortages of high-level skills at the same time as saturation of the labour market at other levels. This may be indicative of problems with the quality and relevance of the education currently being delivered and poor links between education, training and the labour market.
- Evidence of links between education and biophysical data (fertility, mortality rates, etc.) imply that the relationship tends to be more pronounced after primary level. For example the evidence shows that women with secondary education have considerably lower levels of fertility than those without.
- International and inter-state studies show positive correlations between post-basic education levels and economic growth and equality and negative correlations with poverty levels.
- The historical experience of earlier pushes for UPE in Africa indicates that rapid expansion at the expense of quality can lead to inequity and diminished returns to primary education. Expansion at the primary level needs to be balanced with expansion of the post-primary system.
- Access to post-basic education and training is generally strongly biased towards children from wealthier families and urban areas. Expansion has the potential to make it less biased. The rural poor can be assisted through sponsorships and provision of boarding facilities but the allocation of these benefits needs to be carefully targeted and corruption free. The quality of primary education in poor rural areas needs addressing.
- State run/state supported TVET often does not serve the training needs of the poorer sections of society. Other forms of skills training such as apprenticeships may have greater poverty reduction potential.

Chapter 2 discussed some of the direct and indirect pathways by which education and training could potentially impact on poverty levels. This chapter looks at research evidence from the six country studies on the viability of these various pathways. It first considers the economic implications of education by reviewing the rates of return evidence. These only consider the direct economic benefits of education and do not account for the indirect benefits. As a result they tend to overestimate the returns to primary education and underestimate the returns to PBET. Even so, the evidence indicates that the returns to primary education may be falling and investment in higher levels of education appears to be becoming more economically beneficial. The actual wage related returns to education will depend on whether or not the labour market is saturated. PBET can influence the labour market by job creation through the development of enterprises. Saturation of the market by PBET graduates may give unemployment in the short term but may promote growth in the future by pushing down wages.

The chapter goes on to consider the country level evidence of non-income benefits of education that could contribute to poverty reduction such as increased agricultural productivity, reduced fertility and improved health. It considers whether primary education alone is sufficient for a country to enjoy such benefits by looking at the historical examples of Kenya and Tanzania – countries that have both aimed for, and made significant progress towards achieving UPE in the past. This analysis of the realisation of the direct benefits of basic education illustrates the vital importance of the delivery context and the transformative context. Direct evidence of the role of PBET in the transformative context is very limited but international and inter-state correlations are used to explore potential links between levels of PBET and national development. These show strong connections between PBET and poverty levels but are inconclusive about causality.

As mentioned in Chapter 2, for the indirect benefits of PBET to impact on poverty reduction at a community level, some members of all communities must have access to it. Evidence from Kenya, Ghana and Tanzania shows that serious barriers and inequities exist. Attempts to overcome these inequities of post-basic access often fail as they do not address the delivery context of basic education in poor areas.

The final section examines evidence of the role of skills training in poverty reduction and considers the effectiveness of different modes of training and skills delivery.

4.1 Economic returns to education

Conventionally the contribution of education to economic development is analysed in terms of education-earnings relationships and more conveniently in the form of rates of return. The rate of return to education (RORE) is a summary statistic of the relationship between lifetime earnings and the costs of education. Psacharopoulos' long, but contested (cf. Bennell, 1996a), history of analysis has shown the returns to education to be highest for primary education (cf. Psacharopoulos, 1973, 1980, 1985, 1988, 1994; Psacharopoulos and Patrinos, 2002). However, other recent quantitative estimates for returns to education, such as Mincerian returns and regression analysis are telling a different story and point to the importance of post-basic levels.

Psacharopoulos and Patrinos (2002) gave a summary of the international findings on rates of return based on what they considered to be the most comparable and up to date data available (see Table 4.1). They concluded that in general the social rates of return are all positive but decrease with level of education. The figures for the private returns to secondary education are lower than those for primary education.

Table 4.1 International Averages of Rates of Return to Education

	Social			Private		
	Primary	Secondary	Higher	Primary	Secondary	Higher
Low income	21.3	15.7	11.2	25.8	19.9	26.0
SSA	25.4	18.4	11.3	37.6	24.6	27.8
Asia	16.2	11.1	11.0	20.0	15.8	18.2
World	18.9	13.1	10.8	26.6	17.0	19.0

Source: Psacharopoulos and Patrinos, 2002, tables 1 & 2

The high social rates of return to primary schooling, and considerable private returns, have traditionally lent strong support to the prioritising of primary education in the international drive to reduce poverty. However, disaggregated, country level data presents a more complex picture (see tables 4.2 and 4.3). Recent data from Ghana suggests that senior secondary level education gives the highest private and social returns.²⁶ This contrasts with the 1967 data used in Psacharopoulos and Patrinos' study that gave much higher rates at the primary level. In Kenya, the highest social rate of return appears to be at university level. The greatest private rate of return was estimated to be for higher education in all studies except for the most recent Ghana study.

Table 4.2 Social Rates of Return Reported in Country Studies

	Source	Primary	Secondary	Higher	Vocational
Ghana	Canagarajah and Thomas (1997)	11.2	10.6 (Junior) 14.0 (Senior)	7.2	
Ghana (1967)	Psacharopoulos & Patrinos (2002) (based on 1967 data)	18.0	13.0	16.5	
South Africa	Psacharopoulos & Patrinos (2002) (based on 1980 data)	22.1	17.7	11.8	
Kenya	Appleton, Bigsten, Manda (1999) (1995 data)	13	6	17	
Tanzania	Dar (2000) (based on 1990/91 data)	3.6	1.5	0.0	0.0

Table 4.3: Private Rates of Return From Country Studies

	Source	Primary	Secondary	Higher	Vocational
Rwanda	World Bank (2004b)	13.2	21.3	46.9	18.4 (Vocational Secondary)
Ghana	Canagarajah and Thomas (1997)	19.4	13.5 (Junior) 19.5 (Senior)	9.1	
Ghana (1967)	Psacharopoulos & Patrinos (2002) (based on 1967 data)	24.5	17.0	37.0	
India	Kingdon (1998) (based on 1995 data)	2.6	17.6	18.2	
S. Africa (African workers)	Moll (1998)	2.9	9.7	60	
Kenya	Appleton, Bigsten, Manda (1999) (1995 data)	25	7	35	
Tanzania World	Bank 1999a, based on 1990/91 data	3.6	6.9	9.0	19.4

²⁶ For a recent review of education, training and labour market outcomes in Ghana see Palmer (2006b).

One of the main criticisms of the rates of return estimates is that they focus on the waged workforce in the formal economy. Psacharopoulos and Patrinos (2002) themselves point out that few of the studies that they draw on take truly representative samples of the population. Many studies using large firms automatically exclude populations in rural areas and those working for micro- small- and medium-enterprises. Given that the majority of people in SSA and other developing countries, including India, are not in formal sector employment, rates of return estimates are very problematic and can be misleading. Bennell (1996a: 195) comments that, “the oft-repeated assertion that public investment in education is relatively attractive because actual social ROREs are relatively high vis-à-vis other types of investment can probably be no longer sustained in many SSA countries, in particular where wage employment opportunities remain minimal and traditional agricultural practices persist”.

More recent RORE measurements have looked at returns in the informal or casual labour sector. The findings of two such studies are shown in table 4.4. These studies do not provide easy comparisons between employment sectors as few primary graduates are employed in the formal sector and few degree holders work in the informal sector, but the findings imply that the private returns in the informal sector are higher than in the formal sector in Rwanda but lower in India.

Table 4.4: Private Returns to Education by Employment Sector (Informal / Formal)

	Source	Primary	Secondary	Higher	Vocational
Rwanda- formal sector	World Bank (2004b: 170)	Not significant	10.8	34.0	Not significant
Rwanda- informal sector	World Bank (2004b: 170)	12.7	25.3	–	25.0
India- formal sector	Vasudeva-Dutta (2004)	1.0	2.0 (middle) 4.6 (upper)	10.3	
India- casual sector	Vasudeva-Dutta (2004)	0.45	n.s. (-0.2) (middle) n.s. (0.12) (upper)	n.s. (0.21)	

Appleton, Bigsten and Manda’s estimates (1999) for rates of returns in Kenya in 1978 for self-employed primary graduates were very close to those for wage earners, although the RORE for self-employed secondary graduates in 1986 was much lower than the RORE for waged secondary graduates based on the data for that year.

Private rates of return consider the private costs of education to households. Social rates of return also take into account the costs covered by the state, and so are lower than the private returns. In low-income countries and Sub-Saharan Africa, the private returns to higher education are over twice the social rates (see Table 4.1). This indicates that state funding of higher education is regressive in terms of income distribution as it appears to be subsidising individuals who will reap large personal rewards from their education. However, as Psacharopoulos and Patrinos point out, the difference between private and social returns may be

due to the fact that the social rates of return add in the costs to society but do not factor in the benefits. The term ‘social’ is somewhat misleading as the social rates do not take into account the benefits that the society as a whole may gain from an individual’s education. These benefits, referred to as externalities in the economic literature, are likely to be large when an individual has a higher level of education than his/her neighbours; thus they may be more significant at post-basic levels of education. For example, a farmer educated to secondary level may inspire his primary educated neighbours to introduce new technologies based on his own example. Appleton and Balihuta (1996) found that in Uganda, a farmer’s productivity was more closely associated with the neighbours’ level of schooling than his own. Professionals such as health workers, agricultural extension officers and teachers will tend to increase the levels of productivity of populations that they serve. These externalities or ‘spill over’ effects are difficult to measure and so they tend to be omitted. This potentially major omission means that considerable caution needs to be used when basing policy decisions on the rates of return data.

Other quantitative estimates for returns to education, such as Mincerian returns and regression analysis, point to the importance of post-basic levels. The Mincerian method of estimating the returns to education assumes that the only cost of education is the wages foregone during the school/university years. This method tends to underestimate the costs of tertiary education and overestimate the costs of primary schooling (Appleton and Teal, 1998). Appleton, Hoddinott and Mackinnon (1996) note that the pattern of private returns to education being higher for higher levels of education is common across SSA.²⁷

Estimates of returns to education based on Mincerian returns in Ghana (Canagarajah and Pörtner, 2003; World Bank, 2004c) imply that primary education no longer gives the highest return and it is only at the post-basic level that there are significant returns to education. Van der Gaag and Vijverberg (1989) and Glewwe (1991) show the lowest rates of return to schooling in rural Cote d’Ivoire and Ghana to be at the primary-school level. Teal (2001) finds that there was a positive return to education at all levels, but that the returns were higher for higher levels of education. As Canagarajah and Pörtner (2003: 55) noted, one reason why returns to primary schooling may be so low is because the quality of the schooling has fallen so much that essential life skills are not learned.

In South Africa, Fryer and Vencatachellum’s (2002) study of employment trends of black women in the Machibisa township (not far from Pietermaritzburg, in KwaZulu-Natal), conducted before the end of Apartheid in 1989/90, found that the returns to education are: “nil for those with only primary education” (p.16). Reasons for these very low returns to education included a mix of apartheid policies, the extensive use of skill-biased technologies as well as the low quality of effective education. Their studies contribute to challenging the international consensus on high returns to primary education in developing countries. They conclude that:

...in light of our results, we can conclude that the returns to primary education in developing countries may be overestimated when regional labour market specific factors are not accounted for. (Fryer et al, 2002: 19)

²⁷ Among other studies which find falling returns to lower levels of schooling are van der Gaag and Vijverberg (1989) for Côte d’Ivoire, Moll (1992) and Fallon and Lucas (1996) for South Africa, Zambia and Zimbabwe, Jensen and Westergaard-Nielsen (1996) for Zambia, and Söderbom, Teal, Wambugu and Kahyarara (2003) for Kenya and Tanzania (cited in Kingdon, Sandefur and Teal, 2005: 30).

One reason for the wide discrepancies between the data from recent country studies and the overviews compiled for the World Bank (Psacharopoulos, 1994; Psacharopoulos and Patrinos, 2002) is that the rates of return to education change with time and composition of the labour market. The studies used by Psacharopoulos and Patrinos (2002) to give their estimates for SSA as a whole were based on data sets that were, on average, collected 22 years before the meta-analysis was written, with some dating back to the 60s. The composition of the work force in the 60s, 70s and 80s in many countries is likely to have been very different from what it is now. In South Africa, the main source of data for studies into rates of return refers to the pre-1994 period in which society was by and large regulated in the Apartheid mould. The main source of rates of return literature was the Project of Living Standards and Development (PLSD -South Africa- 1993) survey. While in itself not unproblematic, it does refer to an era that has been considerably transformed since 1994. The World Bank evaluation of basic education in Ghana (World Bank, 2004c) suggests that returns have been falling for the basic level due to what is happening in the labour market. The evaluation notes that the positive returns to primary and junior secondary level are no longer evident, and in fact appear negative.

A further problem with interpretations of the poverty alleviation implications of the rates of return data is that Western analysts tend to overlook the way that income is distributed among extended families in non-Western contexts. High private rates of return for post-basic education can be interpreted as regressive if it is just the individual that benefits. However, as Lewin (2005) points out, when the household is considered as a whole, there may be greater benefit from having one member with post-basic education than having all members with primary education. Remittances from a member of a family with higher education (and better income) than the rest of the family (who have less education) is a mechanism by which post-basic education can directly benefit households.

According to Coulombe and McKay (2003: section 6.4), around 40% of households in Ghana receive remittances. Given that there are so few opportunities for formal sector jobs (requiring post-basic education) in rural areas, it is more likely that a household member with post-basic education would work in an urban area. Given also that post-basic education has the potential to provide higher income returns at higher levels, remittances are likely to be higher with higher education levels. However, remittances from basic education migrants are still likely to be relatively significant for poorer households. The effect domestic remittances have in supporting rural livelihoods is unclear, but anecdotal evidence from villages in Ghana suggests that, particularly for the elderly, domestic remittances can be significant (fieldwork by Palmer, Ashanti Region Ghana, 2001-2005). In fact, in Ghana, internal remittances are estimated to reduce the level of poverty by 14 percent, compared with only 5 percent for international remittances (Adams, 2005 in World Bank, 2006a: 65).

It has long been a concern that too many individuals who receive post-basic education and training in the less developed countries migrate and use their skills and knowledge outside the country. A recent report by the World Bank noted that “[h]igh-skilled emigration may have a particularly severe impact on the health sector, and the emigration of doctors and nurses may reduce the likelihood of some countries meeting the MDGs for reducing child mortality, improving maternal health, and combating HIV/AIDS and tuberculosis” (World Bank 2006a: 69). Indeed Chanda (2001, in World Bank, 2006a: 69) estimates that at least 12 percent of the

doctors trained in India live in the UK and that in Ghana only about one-third of medical school graduates remain in the country. About half of South African medical school graduates emigrate to high-income countries (Pang et al, 2002). This so-called ‘brain drain’ of the countries’ professionals has definite implications in terms of the de-skilling of the society, and the public cost to these countries of educating individuals to post-basic level only to lose them abroad. However, the World Bank argues in its 2004 *Global Economic Prospect* that remittances from the African diaspora have become the largest foreign investor in Africa.²⁸ The brain-drain undoubtedly has a flip side of ‘brain-gain’: the international remittances that individuals educated to post-basic level return to family members. But more research on these areas is needed.

There is a growing consensus within Africa that private returns to education are low at the primary level and increase at higher levels education (Kingdon, Sandefur and Teal, 2005: 31). This challenges the justification of focusing funding at the primary level and implies that funding should increasingly be targeted towards post-basic education levels. However, as Glewwe (1996: 284) argues, falling returns at the primary level may be indicative of falling quality and imply that funding at the primary level should be increased and not decreased. Hence, “the implication is *not* that poor countries should invest less in primary education” (Kingdon et al, 2005: 31, emphasis added). Primary education forms the basis of further learning, and since basic education feeds higher levels of schooling, a good quality basic education is essential to maintain quality outcomes at higher levels. However, this implication should certainly not be a signal to keep the focus on basic education alone, since improving the quality of basic education is also dependent on having a stronger and more equitable post-basic education and training system.

In ending this section, it is important to reiterate the ‘health warning’ which should be given to the interpretation of rates of return data. Global and regional economic rates of return to education data are highly problematic when viewed in the light of both quantitative and qualitative country level research. The underlying assumption that the economic benefits to education can be estimated from wages overlooks a vast range of indirect economic benefits to the wider society, which may far outweigh wages. Changes and complexities in the labour market, especially in contexts where regular waged jobs are an exception rather than the rule, make the validity of data sets used to estimate rates of return highly dubious. This may partly help to explain the lack of consistency between the findings of different studies.

4.2 Education and employment

One reason for the fall in the private returns to primary education is that, as the population of primary graduates increases, the value of primary education within the labour market falls. The reduced value of primary education in the labour market is a feature of increased supply of labour with primary education but also indicates changes in the demand for different skill levels. The rapid increase in the level of technology may mean that ‘basic’ education no longer provides the necessary skills to operate productively in modern societies. Evidence from several of the countries covered in this study implies that basic education is of little advantage for getting a job.

²⁸ Cited in *New African*, December 2004, No. 435, p.74.

In South Africa, it appears that the ‘matric’ (12 years of schooling) is no longer of much value in the labour market. McCord and Borhat estimate that only 36% of matriculants can find employment; whilst another 19% go on to further or higher education (McCord and Borhat, 2003; Kraak, 2003a). The author of a study of 35 households in Rwanda (Reiss, 2003) draws the conclusion that primary education has social welfare benefits but is not sufficient for meaningful employment to improve socio-economic status. It is the years of secondary education that begin to make a difference. There was no significant difference in income between those respondents who had not completed primary education and those who had; they were just as likely to be involved in unpaid farming activity. It was with some years of secondary or post-primary vocational training that significant differences in livelihoods were observed.²⁹ These people were much more likely to have access to paid employment and income-generating activities, as well as having better housing and health.

High unemployment among primary graduates is not in itself a valid argument for the expansion of post-primary education. Expansion of post-basic education is only likely to contribute to employment levels if the labour market is not yet saturated at this level, or if an environment for job creation can be established. Investment in post-basic education is potentially a waste of public resources if it simply leads to an increased output of educated unemployed and subsequent qualifications inflation.³⁰ However, ‘over production’ of skilled manpower can keep wages low and potentially stimulate growth in the longer term, as has been seen in South Korea. Restricting access to secondary education based on predicted manpower requirements is problematic as it reduces competition in the labour market and may lead to inflation of wages for secondary graduates, leading to inequity (Knight and Sabot, 1990).

Evidence from Tanzania implies that the labour market for those with secondary education or above is still far from saturated. A recent tracer study (Mukyanuzi, 2003) found that over half of Form 4 leavers from 1990 were in waged employment in 2001 and a further 29% were self-employed. Of the 1995 cohort 36% were in waged employment. The figures for those unemployed and seeking work were 4% for the 1990 cohort and 14% for the 1995 group. These results could be indicative of an increasing unemployment problem but, given that many more of the later cohort were still in further training, the reduced figures for employment could be due to a long time-lag between students leaving school and entering waged employment. In the university-educated group, there was no unemployment among graduates from 1980. Of the 1999 graduates, 81% were in wage employment in 2001 and the majority of those not employed were still in full time education. The findings indicate that the majority of post-primary education graduates find employment in the long term, and that the labour market, especially for university graduates, is far from saturated.

Data from the 2000/2001 Integrated Labour Force Survey in Tanzania (World Bank, 2004d) was used to show that primary graduates earned almost double the wages of those with no education; however, the increment between those with secondary and those with only primary education was much greater. Controlling for experience, location and gender, it was found that a wage earner with completed primary education earned 75% more than one with no schooling,

²⁹ Reiss does not specify the difference between informal post-primary vocational training, and formal lower or upper secondary schooling; nor between those with say two years of secondary education and those with three or more. She does, however, give a threshold of seven years of education making a difference to incomes (Reiss, 2003: 32).

³⁰ See Dore (1976) for an exploration of how labour market saturation leads to qualifications inflation and inefficient investment in education.

whereas a secondary school graduate earned 163% more. In its rationale for supporting the expansion of secondary education in Tanzania, the World Bank argued that the large earning differential between those with and those without secondary education, and also the low prevalence of post-primary educated people among paid employees, indicate scarcities in the supply of labour with secondary education and above.

Conversely in Rwanda, the World Bank sees unemployment statistics as indicative of labour market saturation (World Bank, 2004b), showing that Rwanda's heavy investment in secondary and tertiary education to replace lost skilled workers has now paid off. The capacity of the formal labour market to absorb the growing number of graduates is limited. But despite the unemployment statistics, it is very clear that Rwanda has a huge deficit in terms of skilled policy-makers, administrators and public service providers. It was estimated in November 1994 that only 20-30% of civil servants had been in their positions prior to the genocide. The shortage of qualified judges, lawyers and legal personnel in the country is particularly acute given the huge backlog of cases related to crimes committed during the genocide (Ministry of Justice, 2004). A great many skilled workers were lost during the genocide, either killed or fleeing the country. The need to import skilled workers – from office equipment technicians, through skilled hotel staff for the new international hotels which have recently opened in Rwanda, to university professors – implies that the Rwandan system is failing somewhere to fill the gaps to date; indeed, the weak skill base is actually impacting on productivity levels (Kayiranga Gakuba, 2004: 76).

A study on technical and vocational training needs in Rwanda highlighted the sheer number of young people, under-skilled and under-educated, who were entering the labour market each year, often in the informal sector. It noted that traditional skills training, such as informal apprenticeships, was not being sufficiently harnessed; that many formal skills training programmes had not been successful; that there were weak linkages, if they existed at all, between education and training and employment, as well as a lack of a framework for dialogue and co-operation between employers and trainers; and that the transition for secondary and tertiary graduates into the workplace was poor (Ed.CIL, 2001).

This situation is reiterated in a 2004 study conducted by GTZ on technical skills needs. The GTZ study investigated the demand for skilled employees with technical education qualifications (delivered in upper secondary schools) and semi-skilled employees (those with Youth Training Centre qualifications). For the enterprises evaluated, there were skills gaps that needed to be filled but the expansion of these positions would be limited. The study did observe, however, that there would be great potential in the country for self-employment especially in rural areas, and within the informal sector where different sets of skills are necessary, such as credit management (and finding credit), small business management, entrepreneurship, and micro-finance (Kayiranga Gakuba, 2004: 49).

In South Africa, unemployment is a major issue and currently has a strong racial dimension. Only 29% of new African labour market entrants between 1995 and 1999 were able to find work, compared to 50% of Indians, 70% of coloureds, and 75% of whites (McCord and Borat, 2003). Even when employment is not discriminatory, the lower education levels of Africans, resulting from the legacy of Apartheid, mean that it is difficult for them to compete for jobs. In

order to meet its target of halving unemployment by 2014, South Africa will not only have to improve its growth rate significantly but will also have to make its growth more labour absorbing (Altman, 2004a and b; Hirsch, 2004). Whilst it appears that there is not a widespread skills crisis in the country at present in terms of current levels of demand (Kraak, 2003b; McGrath, 2003), there do appear to be particular areas where skills shortages are a constraint to investment, growth and employment creation and, thus, fuel poverty and inequality.

4.3 Education and enterprise

Where the labour market shows signs of saturation for those with post-basic education it might be difficult for governments to justify high educational spending at this level. However, there is a case for arguing that education has the potential to stimulate job creation. There is some evidence from our six countries that secondary and post-secondary education is associated with the capacity to establish enterprises that create new employment opportunities.

Evidence from East Africa has shown that, in the informal economy, those with higher levels of education are more likely to start enterprises (Alila and Pedersen, 2001) and hence have the ability to employ others. Evidence from Kampala's informal sector (Sengedo et al, in Alila and Pedersen, 2001) shows that the education levels of employers and employees differ considerably. 40% of employers had a secondary school education, whereas the majority of employees had little or no formal education. This implies that a major pathway to becoming an enterprise owner is through post-primary education, and not generally through traditional apprenticeship or informal waged work, where barriers make it difficult for these people to become owners or graduate from apprentice to master. Recent evidence from Ghana (Morton, 2004) suggests a similar pattern in West Africa. Morton shows that employers are, on average, likely to be more educated than employees, with most employers having some level of secondary education, while the average level of education for employees is only a basic education. Palmer (2007a) also shows that master-craftspeople in his survey in rural Ashanti (Ghana) had higher levels of education than their apprentices.

A survey of female-operated small enterprises in Tanzania found that the most profitable businesses were run by the best-educated women, almost half having secondary education or more. However, the more profitable enterprises were also the businesses with high capital investments. The predominance of well educated women among the most profitable group could be due to their education making them more profitable or could simply be because women coming from families that can afford to put their daughters through secondary education are also the ones with access to higher levels of capital needed to start more profitable businesses. The majority of all the female entrepreneurs interviewed felt that schooling had been useful for running their businesses, especially those with post-secondary education. Basic literacy was seen as a prerequisite for receiving any kind of formal training (O'Riordan et al, 1997). The Integrated Labour Force Survey (ILFS) of 2000/2001 gives a far higher proportion of post-primary educated individuals among self employed individuals with employees (26%) compared with self-employed without employees (8%) (GoURT/ NBST, 2004). These findings indicate that those running larger enterprises tend to be better educated than those running smaller enterprises. However this data is inconclusive with regard to causality.

4.4 Education and agriculture

In countries like Rwanda, Ghana and Tanzania, the majority of the poor live in rural areas and are primarily dependent on agriculture. In large countries like Tanzania there is great potential for increased yields on the available land (Limbu, 1999). Returns to education in terms of increasing agricultural productivity would imply a potential for education to have a great effect on poverty reduction. However, evidence from the six countries suggests that the influence that education levels have on agriculture is highly context dependent. Whilst there is some evidence that post-primary education is linked to increased use of agricultural technologies, post-primary graduates are less likely to farm.

Appleton and Balihuta (1996) analyse data from Uganda, and conclude that where “farm workers have four years of primary school, crop output will be 7 per cent higher... than if they had no schooling” (Appleton and Balihuta, 1996: 426). This research finding is similar to the Lockheed et al figure of a 7.4% increase from four years of education. However, they go on to summarise the findings of 13 other, less well-known studies that have explored the relationship between education and agricultural productivity in six African countries; specifically in Kenya, Tanzania, Burkina Faso, Ivory Coast, Ethiopia and Uganda. They conclude that

...the studies... make one cautious about the effect of education on agricultural productivity in Africa. In only a minority of studies is education estimated to have a significant positive effect on agricultural productivity... Nonetheless, the estimated effects are positive in most studies and often fairly large. (Appleton and Balihuta, 1996: 420)

Limbu (1999) gives level of education as one of the factors influencing whether or not farmers adopt new agricultural technology in Tanzania, but concentrates more on other factors such as credit availability. The World Bank-funded PPA in the 1990s (Narayan, 1997) found that rural communities tended to see access to farm inputs as much more important than education, but added that an earlier study concluded that increasing household members’ education by a year each yielded higher returns than increasing land holding by one acre per adult. When parents in Kilimanjaro were asked about the value of primary education it was found that there was a general belief that it would enable them to become better farmers and to make sensible changes to crop production (Maarifa ni Ufunguo, 2002: 20).

Evidence from Rwanda suggests that those with post-primary levels of education make more use of agricultural technologies such as chemical fertilisers and veterinary services (see Table 4.5) but despite this, use of fertilisers fell from 5% in 2001 to 1.4% in 2003, and the use of modern inputs is very low (GoR/ Minecofin, 2004a). This indicates that those with only primary education make little use of fertilisers. There was no linkage found between education levels and food security. Education also appears to reduce individuals’ dispensation to carry out agricultural activities. Attitudes towards rural development demonstrate a lack of value placed on this sector. Few students are interested in enrolling in agricultural courses in the youth training centres (Hayman, 2005), only 4% of students are enrolled in agro-veterinary courses at upper secondary level (GoR/Mineduc, 2004a), and less than 9% of tertiary students are enrolled in agronomy, environmental management and rural development courses (GoR/Mineduc, 2004b). Those involved in the sector highlighted how even students of agronomy had no desire to get their

hands dirty, and ‘returning to the hills’ is considered to be the employment option of those who have failed in education. Post-primary education may make farmers more productive but it is perhaps more likely to encourage people out of farming and into other occupations.

The relationship between basic education and agricultural productivity, within the East African context at least, appears to be much more complex and context-dependent than optimistic statements found in policy documents, e.g. that four years of education increases agricultural productivity, would imply:

4.5 Other returns to education

There is extensive evidence of links between education and reduced fertility and education and improved health, but it is not always clear whether the effects of education on biophysical data are significant for the first years of primary education. It is also important to consider possible intervening variables in statistical correlations.

Table 4.5 gives an overview of the types of correlations between education/training and development made in the analyses of these statistics produced by the Ministry of Finance in Rwanda. A number of issues can be highlighted, most of which are unsurprising:

- poverty is highest amongst the non-educated, with the incidence of poverty dropping sharply amongst those with secondary or higher education;
- fertility is lower amongst women with some education;
- the poor are most likely to be employed in agriculture, low-skilled activities or the informal sector.

Some of the more interesting issues that should be noted include the fact that 51% of households where the head of household has some education are still poor and that 38.2% of people classified as illiterate were ‘not poor’. This should raise questions about intervening variables and the actual weight of education in the equation.

Table 4.5 Correlations between Education and Poverty Indicators in Rwanda

Source	Correlations	Analysis Offered
HLCS ^a	Incidence of poverty according to gender and level of education of head of household (HoH) (p28-29)	Poverty is more marked where HoH has no formal education (although 51% of households where HoH has some education are still poor).
	Poverty by level of education (p.29)	Extremely poor more likely to have no education or primary education. 80.4% of those with secondary education and 96.9% of those with higher education categorised as not poor.
	Fertility and education (p.39)	Higher level of education, smaller size of family.
	Reasons for drop-out from school (p.48) Main reason being cost (so most likely to	affect the poor), lack of interest, illness, work.
	Access to secondary education (p.49)	Discriminates against the poorest.

	Literacy and poverty (p.52)	Poorest more likely to be illiterate – over 50% of illiterate are extremely poor, compared to 42.6% of poor and 38.2% of not poor.
	Number of pregnancies and education (p.71)	Progressively lower number of pregnancies with higher levels of education. Completed secondary and tertiary education makes a significant difference (5.6 average pregnancies for women with no education; 4.4. with primary; 4.2 with post-primary; 2.7 with secondary; and 2.7 with tertiary).
	Employment and level of education (p.75)	Higher levels of education associated with more skilled employment (administration, technical professions, management). Lower levels of education associated with agriculture, labour, traders.
	Unemployment and education levels (p.79-80)Poverty and employment status (p.83)	9% of those with secondary education are out of work – mostly in urban areas, although highest unemployment rate is amongst those with primary education. Unemployment amongst higher education graduates is limited to Kigali (9.4%). Those in agricultural occupations are likely to be poorest; those employed in the informal sector also among poorest; high incidence of poverty also amongst apprentices and home-helpers.
	Obstacles to job creation by gender (p.107)	On basis of lack of openings, access to credit, capital, administrative regulations, location, etc.
CWIQ ^b	CWIQb Literacy and socio-economic group (p.7)	Literacy highest among employees of public sector; lowest amongst ‘independent’ farmers.
	Reasons for abandoning school (p.8)	Cost (32.6%); failure (23.1%), work (16.1%), illness (10.6%), education of no use (10.3%).
	Number of meals per day and education level (p.15)	66% of HoH with post-secondary education eat 3 times a day, as against 1% of HoH with no education.
	Use of chemical fertilisers (p.34)	Higher among those with post-secondary education.
	Use of agricultural production (auto-consumption or sale) and food security (32 and 34)	Educational level makes no difference.
	Education and stock-rearing (35)	HoH with no education or only primary education more likely to raise animals than HoH with education. But those with higher levels of education more likely to sell cattle.
	Education and use of veterinary services (37)	41.8% of those with post-sec/ed use vet services, against 29.5% with partial sec/ed and 14.3% with no education.
	Desire to raise animals (38)	Much lower amongst educated population.

Notes:

^a The HLCS (GoR/ Minecofin, 2002) was conducted over the course of 2000-2001.

It is conducted every 5 years; the next one was due to commence in 2005.

^b The CWIQ (GoR/ Minecofin, 2004a) is conducted every two years; this version dates from 2003. The aim is to monitor poverty issues between Household Surveys.

Primary education is linked to reduced child mortality and the effects are much greater at the post-primary levels. Benefo and Schultz (1994: 23) show that for Ghanaian women aged 35 to 49, 1-4 years of maternal education is associated with a 17% reduction in child mortality but further years of maternal schooling are associated with proportionally greater decreases. Tettey (2003) shows that infant and child mortality are lowest amongst mothers with higher education in Ghana and Nigeria. The infant and child mortality for children of mothers with secondary education or higher is around half that of children of women with primary education only. Wak (2002) also shows in Ghana that the more education a mother receives the lower the chance of infant mortality, with children of mothers educated to senior secondary and above faring the best.

Benefo and Schultz's (1994: 23) research in Ghana shows that the mean number of children ever born for women aged 35 to 49 was 6.13. In this age group, the statistical effect of 1-4 years of maternal education compared to no education is approximately a 10% decline in fertility (6.11 versus 6.67). Compared to women with 1-4 years of schooling, women with 5-10 years of education have 12% fewer children on average (5.38 versus 6.11). Compared to women with 5-10 years of education, women with 11+ years of education have 31% fewer children (3.7 versus 5.38). Since formal post-basic education in Ghana starts after nine years of education (excluding pre-schooling), it can be seen that although fertility declines as education level increases, the apparent impact of a post-basic education is more significant.

With reference to Ghana, regression analysis conducted by Benefo and Schultz (1994) shows that "education has a pronounced negative relationship with fertility *after the primary level*" (ibid.: 31-32, emphasis added). Bonuedi (2003) shows that the education level of a mother affects the mean number of children she will ever have. Whyte (2000) also shows that mothers with an education to senior secondary level or higher have the lowest fertility rates. Arko (2001) shows that mothers with an education to senior secondary level or higher have a preference for smaller families compared to those educated to lower levels.

According to the UNDP's statistics (UNDP, 2004b), the total fertility rate in Tanzania in the early 70s (1970-75) was 6.8 births per woman and dropped to 5.1 (2000-2005). Vavrus and Larsen (2003) compare this with much smaller reduction in fertility in Uganda over a similar time frame and conclude that the higher level of primary school completion among Tanzanian women accounts for the difference. However, it represents rather a small change when compared with a drop from 6.9 to 4.1 in Ghana over the same period. In the early eighties GER in Tanzania nearly reached 100% whereas in Ghana it never reached 80% and yet Ghana saw a far greater drop in fertility rates (UNESCO Institute for Statistics, 2001; UNDP, 2004b). Figures for fertility by education level (see Table 4.6) indicate that Tanzanian women with primary education have only slightly fewer children than those without, and that incomplete primary education makes almost no difference to fertility. Women with secondary education have considerably lower levels of fertility than those without.

Table 4.6 Fertility Rates by Residence and Education Level

	Total fertility, women aged 15-40 years
Residence	
Dar es Salaam	4.0
Rural	6.6
Education	
No formal education	6.5
Incomplete Primary	6.4
Complete Primary 6.0	
Secondary/ Higher	4.2

Source: Omari, 1999: 84

Whilst the difference in fertility between women with and without secondary education is large, the gap between those in rural areas and those living in Dar es Salaam is even larger and may be indicative that urbanisation has a greater fertility reducing effect than schooling. This raises the possibility that the link between education and fertility in Tanzania is not a direct one but that more educated women are more likely to come from, or migrate to, urban environments and it is the urban environment rather than schooling per se that impacts on their fertility. Vavrus and Larsen (2003) found a large but statistically insignificant difference between rural and urban fertility levels. The difference between fertility levels of women living in households with electricity and those without was significant and the difference was of very similar magnitude to the difference between women with primary education and those without.

While the kinds of research findings summarised above are useful, it has become normal to assume that each additional year of girls' education has a measurable and direct impact on reduced fertility. But like the equally well-known claim – that education has a marked effect on increasing agricultural productivity but only in dynamic environments (cf. King and Palmer, 2006c) – it could easily be argued that the research finding about education and fertility (cf. Cochrane, 1979) is also dependent on an enabling environment being present. By contrast with this prevailing wisdom which is now an accepted and long-standing policy research finding, the Millennium Project's Interim Report on Primary Education discusses the importance of egalitarian and inegalitarian environments for women's work and status as key variables which may well have a bearing on whether there really is a translation of years of female education into reduced fertility (Birdsall et al, 2004: 60).

The World Bank's secondary education issues paper also points to a whole host of other positive externalities connected with secondary education, including: benefits to the child's intellectual achievement when mothers are more educated; more educated women delaying marriage and having fewer, healthier children; lower mortality rates for under fives in households where mothers have some secondary education, compared to those that have no schooling; lower risk of HIV/AIDS for those that complete secondary compared to primary completers (World Bank,

2005b). In many ways, these assertions are reminiscent of the slew of developmental impacts that were earlier associated with investing in primary education. It seems likely that these later studies suffer from some of the same correlational weaknesses that we noted for the studies of primary education.

4.6 International and inter-state correlations: capturing the externalities

Most of the research evidence cited above relates the education levels of individuals with a variety of beneficial outcomes. As with the social rates of return data, this type of correlation does not take into account the benefits that the wider society may experience as an indirect outcome of education. Correlations between national enrolment statistics and development/poverty reduction indicators can go some way to capturing these externalities.

Panel analysis of real per capita GDP growth rates in about 100 countries over three periods, 1965-75, 1975-85 and 1985-90, by Barro (1991) showed that secondary and tertiary levels of education attainment of the male adult population are significantly correlated to growth, but the growth is not significantly related to primary education.³¹ Barro and Martin (1995) found that higher initial secondary and tertiary education have significant positive growth effects. An increase in male secondary education by 0.68 years raises annual growth by 1.1 percentage points annually, while an increase of 0.9 years in tertiary education raises growth by 0.5 percentage points. In an important study, Barro (1999) found in his cross-country regressions on 100 countries that economic growth between 1960 and 1995 is positively related to the base level (1960) secondary and higher levels of education attainment of adult population. Higher education is found to be an important determinant of cross-country differences in long-run growth (Levine and Renelt, 1992). There are also studies, including the World Bank's recent issues paper on secondary education, which argue that developing countries need to achieve a 'minimum threshold level of skills' in order to benefit from technology transfer from 'global leaders' (cf. World Bank, 2005b: 18). On the other hand, Pritchett (1996) questions the links between educational attainment and economic growth, noting a lack of an association between growth and expanded education (Pritchett, 1996: 2). His examination of "two recently created data sets on the education attainment of the labour force shows that the growth of educational capital per worker has had no (or even perhaps a mildly negative) impact on the rate of growth of output per worker" (ibid.: 1). The inconsistency of the relationship between education and growth highlights the need to consider very different social, political and cultural differences between different county contexts.

Using data from within one country can help to reduce the effect of context. For this study, education levels and development indicator correlations have been examined using state level data for India. Tilak (2005) examines the relationship between the stock of adult population with secondary and higher education (SHEA) of the 32 states and union territories in India with the poverty ratio, infant mortality and life expectancy. He introduces a time lag of 5 years, taking the SHEA data for 1995/96 and relating it to poverty indicators for 1999/2000, thus allowing some time for the influence of education to have an effect.

³¹ An increase in male secondary schooling by one standard deviation is estimated to raise the growth by 1.1 percentage points annually and higher education by 0.5 percentage points. Barro (1999, 2001) provides an updated analysis.

A simple correlation of levels of education against poverty ratios (Table 4.7) shows that illiteracy and poverty go together; this is not surprising. But more importantly, literacy (mere literacy) and primary education are also positively related to poverty ratio. It is only when people have at least completed middle/upper primary level of education that the relationship between education and poverty becomes negative and important; and the negative relationship becomes stronger when the level of education is raised to secondary (and above).

Table 4.7: Coefficient of Correlation between Education and Poverty

Coefficient of Correlation between Poverty Ratio (1999-00) with	
% of Population (1995-96) having	<i>r</i>
Illiteracy	0.21
Literacy	0.49
Primary	0.05
Middle/Upper Primary	-0.36
Secondary and above	-0.56

Source: Tilak, 2005

A semi-log regression on the same data gives a significant relationship between the poverty ratio and the proportion of adults with secondary or higher education in the different Indian states. The regression coefficient is higher and more significant in rural than in urban areas (see Table 4.8). For the regressions involving biophysical data (infant mortality and life expectancy, tables 4.9 and 4.10) there appears to be a significant relationship in rural areas but not in urban areas. The regression coefficient for SHEA and infant mortality is negative (the more post primary educated adults in the state, the lower the levels of infant mortality) and for life expectancy is positive (the more post-primary educated adults in the state, the longer people live on average).

Table 4.8: Regression of ln Poverty Ratio (1999-2000) on Percentage of Population with Secondary and Higher Education (1995-96)

	Regression Coefficient
Rural	-0.098***
Urban	-0.033**
Rural Plus Urban	-0.043***

Note: *** significant at 1% level; ** significant at 5% level.

Source: Tilak, 2005

Table 4.9: Regression of ln Infant Mortality rate (2001) on Percentage of Population with Secondary and Higher Education (1995-96)

	Regression Coefficient
Rural	-0.0182***
Urban	0.0079

Note: *** significant at 1% level.

Source: Tilak, 2005

Table 4.10: Regression of ln Life Expectancy at Birth (2001-06) on Percentage of Population with Secondary and Higher Education (1995-96)

	Regression Coefficient
<i>Dependent Variable: ln Male Life Expectancy</i>	
Rural Education (1995-96)	0.0033***
Urban Education (1995-96)	0.0009
<i>Dependent Variable: ln Female Life Expectancy</i>	
Rural Education (1995-96)	0.0042***
Urban Education (1995-96)	0.0021

Note: *** significant at 1% level.

Source: Tilak, 2005

Even with the added time lag, the causal nature of the relationship between education levels and poverty reduction remains ambiguous. Both are likely to be closely related to the GDP of the state during the earlier time period; so the regressions are not sufficient as evidence that higher levels of post-primary education lead to poverty reduction. However, they do highlight relationships that would benefit from further analysis.

4.7 Lessons from history

Whilst there is extensive research evidence for the *potential* of education, especially primary education, to contribute to economic growth and poverty reduction, the experiences of earlier attempts to bring about UPE in Kenya and Tanzania show that these gains are far from automatic when considered at a national level. Ruth Kagia has expressed this succinctly: “The spectacular expansion of education in Kenya in the 70s and 80s has clearly not led to the economic and social gains generally associated with education” (Kagia, personal communication, 13 December 2004).

In Kenya the removal of fees for the first four years of primary school in 1974 brought in almost an additional million children across the whole system. But a closer examination of the

numerical trends is more worrying. Headteachers in many areas apparently raised their levies and charges for building funds (Somerset, personal communication 18 February 2005). This naturally resulted in very poor retention. Indeed by the time the free primary cohort of 950,000 had reached Standard VII, its size was down to just 350,000, or 37% of those who had entered in 1974. The question must surely be whether this free primary education episode merely encouraged the children of the poorer families to come into school with much fanfare, but paid little attention to their vanishing, almost entirely, over the next 7 years. Something similar may have happened with the introduction of free milk in 1979 and the alleged transfer of all other schooling charges from parents to communities. Again, there was a huge increase in numbers, with Standard I shooting up from 599,000 to almost a million. However, by the end of 7 years, no fewer than half of the new children had vanished, with a retention ratio, again, of some 37%.

Immediately following the 2002 election, the new Kenyan Government confirmed its commitment to UPE as its top priority, and introduced its Free Primary Education policy in January 2003. Consequently no less than 1.3 new children turned up for school in January 2003, increasing total enrolment in the 8-year primary sub-sector to 7.5 million by 2004. Although the survival rate to the last year of primary school had only been about 56% before the change (2001/2), the school drop-out rate is now coming down, partly due to the improved learning environment in schools where the availability of textbooks has increased substantially. However, far too little is still known about the consequences, especially for pupils from poor families, of this major initiative in free primary education. The four-year secondary school level is experiencing increased pressure on its places due to the rapid increase in primary level enrolments, despite the fact that secondary schooling remains an expensive choice for most parents. In 2001/2 of the 56% of those enrolled in primary school that completed the last grade of primary, about 73% were able to make the transition to lower secondary school.

As mentioned earlier, the structure of the education system in Tanzania reflects the strong pro-poor focus of Nyerere's *Education for Self Reliance* (1967). State funding favoured the expansion of primary education and government spending on secondary education was limited. In the late 1970s great efforts were made to achieve UPE and by 1980 the GER had reached 98%. Many Tanzanian writers (e.g. Leshabari and Masesa, 2000; Rajabu, 2000) identify the push for UPE as the major cause of the deterioration in quality at all levels of education in Tanzania. 'UPE', pronounced 'oopay', has become a colloquial term associated with low quality education rather than with universalisation. Expansion of primary education without expansion of secondary education led to reduced transition rates, which was perceived by parents as reduced quality of primary education. The expansion of primary also caused a high demand for teachers, to the extent that there were not enough secondary graduates to supply the demand, and primary teachers were drawn from populations which had not attended secondary school and which then trained through distance training programmes.

By the end of the twentieth century the level of quality of the education system had reached crisis point (Kuleana, 1999; Galabawa, Senkoro et al, 2000; Lwaitama, Mtalo et al, 2001). Schools lacked sufficient classrooms, furniture and textbooks. Less than half of teachers met the Ministry's minimum qualification requirements. Classrooms were overcrowded, teaching methodology was authoritarian and harassment of pupils, including sexual harassment, was common (Rajani, 2001). The level of absenteeism among teachers was high (Kuleana, 1999).

The fall in quality of primary education caused parents to lose faith in the value of sending their children to school (Malekela, 1994) and made the initial progress towards achieving UPE unsustainable. By 1995 less than 60% of children were enrolling in primary schools (GoURT/MoEC, 2004).

The quality of education appears to have had serious repercussions in terms of equity and poverty reduction. One symptom of parents' lack of faith in public school quality was the rise of the private tuition industry. This was exacerbated by poorly paid teachers who felt that they needed to subsidise their salaries with extra work. There were reports that some teachers deliberately under-taught in order to coerce pupils into attending their private tuition classes (Rajani, 2001). For the primary school leaver examination, there was a close correlation between pupils who received private tuition and pupils who passed and got selected for secondary school (Mbelle and Katararo, 2003). If curriculum delivery shifts into private sector tuition due to poor delivery in schools, the poor become excluded from much of the curriculum and their access to higher levels of education is restricted. Another source of inequity was the range of extra charges that were levied by schools. Schools in richer areas were able to supplement their funds with parental contributions above the school fees whereas schools in poorer areas were not able to levy these charges. Schools in wealthier areas also tended to attract the better qualified teachers. The disparity between the quality of schools in rich (generally urban) and poor (mainly rural) areas remains very marked (Davidson, 2005).

As a result of the baseline quality of primary schooling being so low and places at secondary being so limited, pupils from poor rural families had very little chance of getting a place at secondary school. Only children from communities with the ability to supplement state provision through school contributions or tuition had a reasonable chance of getting to secondary school. In order to achieve equity through accelerated expansion of the primary sector, quality was compromised to such an extent that the schooling available to the majority was of very little value and it was only a richer minority that were able to access post-primary education. These lessons of history have important implications for the massive, and often under-planned expansions of primary education in the late 1990s and early 2000s. They may undermine dramatically the quality of provision, and may actually prevent poor children from reaping the many claimed benefits of basic education.

4.8 Equality and post-basic education

The inverse relationship between education and poverty levels can be explained by the positive outcomes of education on poverty reduction but could also be explained by the negative effect that poverty has on access to education. Evidence from household surveys and Participatory Poverty Analyses (PPAs) in Kenya, Rwanda (see Table 4.5) and Tanzania gives clear proof of the educational poverty trap: primary education is not enough to lift individuals out of poverty through employment and yet the poor have very little access to post-primary education. Costs, including fees and other expenses, constitute a major direct barrier. For the rural poor, distance can also limit access. Yet attempts to overcome these direct barriers through state sponsored post-basic education, boarding facilities and even targeted strategies such as scholarships and bursaries have been of little apparent benefit to the poor. Participation rates at secondary and

higher education remaining stubbornly and dramatically skewed towards the richer end of society. Evidence from Tanzania, Ghana and Kenya suggests that the core of the problem of inequitable access to post-primary education lies at the primary level, where the low quality of state provision means that the poor tend to be the first to drop out and tend to lose out in post-primary selection to those who have been able to supplement state provision through private means.

The present status quo in Ghana is for formal post-basic education largely to exclude the poor. Despite only 10% of the population achieving an education level of senior secondary or higher (GSS, 2000: 8, Table 2.1), of the total resource envelope³² for education in 2005, an estimated 47% was allocated to senior secondary, teacher and tertiary education (GoG/MoEYS, 2005: 97). Moreover, a recent study by Ghana Statistical Service reveals that the poorest 10% of the population are unlikely to benefit directly from public expenditure on either secondary or tertiary levels (Danso-Manu, 2004). It is at the tertiary level that the poor really are excluded. The Ghana Statistical Service study shows that the poorest 45% of Ghana's population have no access to tertiary education and hence do not benefit from public expenditure at this level. At the other end of the spectrum, the Ghanaian elite, the richest 1.5% of the population, command 55% of public spending on tertiary education (Danso-Manu, 2004).

Access to secondary education in Tanzania is extremely biased towards the urban areas. According to data from the 2000/2001 Household Budget Survey, enrolment rates at lower secondary for urban children are seven times higher than for rural children. There is also a seven-fold difference between enrolment rates for the richest and the poorest quartiles. At upper secondary the urban-rural enrolment difference rises to well over a factor of ten. Given average incomes, secondary fees were arguably unaffordable for most Tanzanians and the burden is proportionately much greater for poorer households (World Bank, 2004d: 52).

In Kenya the government only covers around one third of the cost of secondary education which means that a much greater burden falls on the parents, and hence makes it less likely that children from poor families are able to continue from primary to secondary. Secondary education has not been free, but its cost has been more than two times the per capita consumption expenditure for those in the poorest quintile of the population (World Bank, 1998).

In many of the countries in this study, government funds exist to help support bright children from poor families to attend secondary schools. In Rwanda, the Genocide Survivor's Fund (managed by the Ministry of Local Affairs) pays the secondary school fees of many orphans of the genocide at public and private secondary schools. Concerns have also been raised that several private schools, often sub-standard, are effectively living off these funds. District Education Funds are beginning to provide bursaries for more gifted pupils, but there are concerns that these bursaries are not going to the most vulnerable (CARE International, n.d.).

In Tanzania ministry scholarships are currently 180,000 TSh (180 US\$), leaving over 100,000 TSh (100US\$) to cover costs for transport, uniform and other requirements. Many non-governmental and faith-based organisations also sponsor secondary school students. Despite these funds, major barriers still exist that prevent intelligent children from poor rural families accessing secondary education. Low quality primary education means that few children from

³² The total resource envelope includes GoG resources, donor funding, internally generated funds and other sources (e.g. GETfund, HIPC, DACF and EFA Catalytic).

rural areas qualify for secondary education, and very few for places at the prestigious national boarding schools. The ability to access financial support depends on how well-informed the local community is about available funds and whether the lines of communication are corruption free. There is anecdotal evidence of bright students from rural areas reporting to distant secondary schools only to be turned away because their place, and even their identity, has been 'sold' to a child from a wealthier family.

Scholarships and bursaries in Kenya were found to be of little assistance to the poor. The PPA pointed out that:

Because many bursaries are designated for secondary school students – and most poor children do not attend secondary school – they automatically fall to children in better-off homes (Narayan and Nyamwaya, 1996: 40).

The report found that a relatively small proportion of children in the lowest quintile of income got their fees covered at secondary, while a significant number of those in the two top quintiles did manage to get fee support. This ability of richer families to gain access to bursary funds could be symptomatic of the levels of corruption within Kenya.

In South Africa there continues to be evidence, both in national documents and the popular press, that learners are still being excluded from school because of failure to pay fees (GoRSA/DoE, 2003a). There is also evidence, collated by the DoE itself, that poverty is the strongest predictor of educational performance (GoRSA/DoE, 2003a and 2003b; see also Crouch and Mabogoane, 2001). This has led the Department to develop a Minimum Basic Package of what sums a school needs in order to educate one learner to a minimum acceptable standard. This package includes a calculation of the cost per learner for items such as electricity, water, sanitation, building maintenance and textbooks. Schools serving the bottom 20% of learners in income terms can then be given this package but cannot then charge these learners fees.

The distance a child has to travel to school affects access to education. The situation in rural areas is obviously worse than in the urban areas. In Ghana about three-quarters of all junior secondary students have to walk more than 30 minutes to school (UNDP/ISSER, 1999: 39). In Tanzania, students from rural areas often end up renting accommodation so that they can attend secondary day schools. But they can only afford very low quality accommodation and have to raise their living costs through working. Youths, especially girls, are made vulnerable to risks of sexual abuse as they are forced to live away from home (Rajani, 2001). To alleviate the situation of students living away from home to attend day schools, some communities have striven to build hostels, especially for girls. This could provide an interim measure while the diameter of school catchment areas remains larger than what is feasibly commutable for most students. In the 1990s the government set up the National Education Trust Fund, a non-government association conceptualised by the World Bank and funded by the Norwegian Development Agency. The purpose of the fund was to expand access to secondary schooling through grants to non-government schools. The fund did not support the building of new schools or building hostels; so it gave no improvements to access in under-served areas. Several evaluations of the Trust Fund concluded that it increased regional inequalities (Brock-Utne, 2000).

In Ghana, the poor quality of public basic education leads to the elite using private education to gain access to publicly funded secondary and tertiary education, further marginalising the poor. Research by Addae-Mensah (2000) shows that over 60% of entrants into the five publicly funded universities are from just 18 senior secondary schools – considered to be ‘elite’ public boarding schools. The Education Sector Review noted that the Ghanaian elite tend to send their children to good quality private primary and Junior Secondary Schools so that their children are better able to get access to the publicly funded ‘elite’ senior secondary boarding schools (GoG/MoEYS, 2002). Others rely on private tuition (Cobbe, 1991). The poor are being priced out of good quality basic education. Kunfaa and Dogbe note that “education is often out of reach for poor families who face formidable barriers of access and cost in trying to send children to school” (2002: 34). Moreover, “better equipped schools are becoming even more out of reach for the poor, as schools introduce extra charges to finance upgrading projects” (UNDP/ISSER, 2001: 11). Newly introduced capitation grants should serve to remove levies at the primary level and hence make this level more accessible for the poor (though indirect opportunity costs are still present for the poor).

There is some evidence that secondary and higher education can contribute to national levels of equity. There is a close correlation between the GINI coefficient and the enrolment rates in secondary and higher education (Tilak, 2006). The restricted number of secondary places in Tanzania may have contributed to inequality. Knight and Sabot (1990) found that expanded access to secondary schools in Kenya gave greater equality of pay than in Tanzania. The policy of strict rationing of places at a limited number of secondary schools in Tanzania was aimed at ensuring equality. However, according to the findings of Knight and Sabot, this policy led to access in Tanzania being less egalitarian than in Kenya. Expansion of secondary would have disproportionately favoured the poor. A child of an uneducated farmer in Kenya was found to be 3.5 times more likely to go to secondary school than one in Tanzania.

4.9 Skills training and poverty reduction³³

In this section we will briefly look at pre-employment skills training as well as skills training taking place on-the-job. The wide variety of different forms of vocational training provision in different countries makes it difficult to draw conclusions about the role that the sector as a whole plays in poverty reduction, but some patterns do emerge. State-run, institutional TVET appears to be beset with problems of cost, labour market relevance and accessibility to the poor; so it appears to have limited potential for direct poverty reduction in its current form. Private training centres run for profit are more able to react to training demands (of employees and potential trainees) but tend to serve richer, urban populations. They are therefore unlikely to contribute directly to poverty reduction but could contribute indirectly by generating growth and stimulating the employment market (e.g. through graduates starting enterprises). NGO-run training centres, such as those run by faith-based organisations, tend to be the most accessible and relevant for the rural poor, and hence the most likely institutions to have direct poverty reduction effects. On-the job training, such as apprenticeships, tends to be more accessible, more relevant and give better employment prospects than institutionalised training.

³³ For a state of the art review on skills and poverty reduction see King and Palmer (2006b).

The rates of return to vocational and technical secondary education tend to be less than for general secondary education; nevertheless they are generally positive and reasonably high (see Tilak, 1988).³⁴ Comparisons of the ROREs for general and vocational secondary education in Rwanda indicate that the returns to vocational secondary education are lower, even for workers in the informal sector (see Tables 4.3, 4.4, World Bank, 2004b). The World Bank Social Sector Review for Tanzania (World Bank, 1999a) gives figures for private returns to training, both vocational and on-the-job (19.4% and 35.5% respectively), that are significantly higher than returns to formal education (see Table 4.3). Data from India indicates very high rates of return for some training courses (Chakravarti, 1972). Workers with on-the-job training were found to be more productive than those trained in pre-employment vocational institutes (Fuller, 1976). A study of six industries in Delhi (Thakur, 1979) also confirmed that social rates of return to firm-based training were higher (9.6%), compared to training in industrial training institutes (7.8%), though both were positive and high.

As well as increasing incomes directly through wages, skills training can contribute to agricultural productivity through cross-financing. Cross-financing involves the use of profits from one (farm or non-farm) enterprise as an input for another (farm or nonfarm) enterprise. The relationship is two-way, with farm activities cross-financing non-farm activities and vice-versa. In Ghana most people, particularly those in rural areas, practise occupational pluralism, working both on and off the farm. The increased productivity resulting from skills training in non-agricultural rural employment has positive knock-on effects to agricultural enterprises, principally through cross-financing (Palmer, 2004b: 35-36).

Whilst there is great potential for TVET to contribute to poverty reduction, it frequently goes unrealised. The vocational education systems in several of the countries within this study could be considered to be in crisis. There is a crisis of cost since “vocational training is inherently expensive” (Grierson, 1997: 11). There is a crisis of relevance, since “there is a growing mismatch between the training offered by vocational training programmes and the skills needed for dynamic competitive markets” (Grierson, 1997: 11-12). And there is a crisis of equity, since “vocational training programmes are often difficult to access and use, especially for those in greatest need of self-employment skills” (Grierson, 1997: 12). These crises are illustrated by the findings in Tanzania, Kenya and Ghana.

When viewed in terms of the employment prospects for graduates, government funded TVET in Tanzania appears to be quite effective. A tracer study of the Vocational Education and Training Authority (VETA) found, of those graduating in the mid 90s, 30% were in waged employment, around 50% were in self-employment and 12% were unemployed in 2002 (Bennell, Bonde et al. 2002). The figures for waged employment and unemployment are very similar to those given for secondary graduates from the mid 90s, which are 36% and 14% respectively (Mukyanuzi, 2003). However, the average wage earned by VETA graduates was around half that earned by secondary school leavers. The proportion of those going into self-employment after graduating from VETA is considerably higher than that of the sample of secondary graduates, but many more secondary school graduates were still in further training and hence excluded from the employment figures.

³⁴ What is interesting about the quantitative literature is that there has been very little attempt to calculate returns to TVET (but see also Bennell, 1996b).

These relatively favourable employment figures must be considered against the costs of VETA training. Recurrent unit training costs at VETA centres were estimated to be well over 10 times the cost of educating a secondary school student, and over 50 times the cost of educating a primary school student. The crisis of relevance is illustrated by the fact that well under half of the graduates in the tracer study were in training-related employment. For some courses, such as secretarial and computing, very few graduates found work in training-related jobs. Less than 10% of graduates were located in rural areas, implying that VETA has little impact on improved service provision in the areas where most of the poor live. There is also an increasing crisis of equity. During the 90s, access to VETA for the poor appears to have become more restricted (Bennell, Bonde et al, 2002).

VETA centres account for less than 10% of the vocational skills training provision in Tanzania. Most training is delivered by church trade schools or private training centres (Bennell, Bendersa et al, 1999). Many church-based centres are located in rural areas. They tend to deliver two-year courses in manual trades such as tailoring, masonry and carpentry. They have relatively low fees and train mainly primary leavers. Private centres run for profit are mostly located in urban areas and offer shorter, more expensive courses in commercial skills. It would appear that non-state providers, in particular the centres run by faith-based organisations, have greater potential for directly impacting on poverty reduction than the state sector.

The report on the *Rapid Appraisal on the Status of Technical and Vocational Education and Training (TVET) in Kenya* (GoK, 2003d) reported that there was agreement that the quality of TVET graduates was fast declining at all levels due to outmoded equipment, poor instruction, lack of work experience and meaningful supervision. As to the idea of industrialisation by the year 2020, the current TVET curriculum was so weak “in various aspects of technology development and transfer of skills that Kenya cannot achieve meaningful progress towards industrialisation no matter what the deadline” (GoK, 2003d: vii). From industry’s perspective, the TVET system was not demand-driven; attachments and linkages to industry were fragile, poorly planned and inadequately supervised. As to the financing of TVET institutions, they were grossly underfunded, and as most students were now self-sponsored, the TVET system discriminated against children from poorer families. There were no bursary or loan schemes available to help poor students in the TVET system.

In Ghana the poor are often excluded from institution-based vocational training. Fees are often too expensive and payment schedules too inflexible for the poor (especially for cocoa farmers who receive a bulk amount of money each year, typically November/December). The rural poor are further excluded because most formal training is located in urban / peri-urban areas or larger rural settlements and there is a lack of facilities, such as hostels, teacher accommodation and rural infrastructure. Furthermore, the poor cannot afford to forgo the time and money for training courses, that often last three years, when they could be earning money directly or helping their family in enterprise activity, including farming.

The government has attempted to open up TVET to the rural poor by funding Integrated Community Centres for Employable Skills (ICCES). These centres offer students three year certificated courses in traditional trades such as carpentry, masonry, dressmaking and hairdressing. Most of the trainees are basic education graduates with nine years of schooling and

generally come from the poorer segments of Ghanaian society. A tracer study of 110 ICCES graduates who were not in further training showed that 85% were reportedly undertaking some form of paid work (Palmer, 2007a). Most of these were working in the informal sector and about a third of graduates were self-employed. Female graduates appeared to be significantly disadvantaged compared to their male counterparts; with 40% of females categorised as ‘not working’, compared to 5% of male graduates. While most graduates were working, the disabling post-training environment (no follow-up support, advice or assisted access to start-up funds) means that many ICCES graduates are unable to work with the skills they have acquired during training; 30% of all graduates (21% of male graduates and 50% of female graduates) were not using their skills in their current employment activity according to this study.

Box 4.1. The Importance of Traditional Apprenticeship Training in Ghana

In Ghana, traditional apprenticeship training is responsible for some 80-90% of all basic skills training, compared to 5-10% from public training institutions and 10-15% from NGO for-profit and non-profit providers (Atchoarena and Delluc, 2001: 225; Haan and Serrière, 2002: 34; World Bank, 2004c: 129). Hence it is clear that the formal, institution-based, vocational training provision while not insignificant by any means, does not reach the majority of Ghana’s youth. In 2000 the estimated number of students in formal TVET skills training in Ghana was 35,000 (Botchie and Ahadzie, 2004), including approximately 10,000 trainees in private for profit vocational centres. This figure includes TVET training at all levels including vocational centres and institutes populated primarily by junior secondary leavers, as well as technical training at the tertiary level, health training (nurses and technicians) and functional literacy centres for adults. Approximately 20,000 out of the 35,000 TVET places would be open to junior secondary graduates. Far fewer would be open to those with less than a pass at the JSS level (mainly the Integrated Community Centres for Employable Skills centres and some private vocational training institutes). This total TVET enrolment can be compared to an annual figure of about 240,000 junior secondary leavers. Hence it is clear that formal TVET provision is not such a widespread option for Ghana’s youth. Skills training in the informal economy, in traditional apprenticeships or other on-the-job informal learning, remains the most widespread mechanism for Ghanaian youth to acquire skills (Palmer, 2007a).

In terms of numbers trained, (informal) enterprise-based training rather than centre-based training represents a far more significant provider of skills (box 4.1). Factors that impact on labour market outcomes of apprentice graduates, the advantages and disadvantages of this type of training, are well documented (cf. World Bank, 2004a: 133-134).

Since informal skills training occurs within the labour market itself (as opposed to in a vocational centre separate from the labour market) it is highly relevant to the real world of work, and allows apprentices to get acquainted with real work conditions. Skills training within the workplace helps to develop social capital. Training allows for a gradual building up of informal business networks (with suppliers, customers, other apprentices and masters) (Assad, 1993). ‘Informal social networks’ (Hart, 1973) are strengthened and knowledge about informal sector associations and contacts gained. Skills training can help develop business skills and experience.

Training in the work place results in experience in, and the development of, general business and managerial skills, including customer relations skills, crucial to apprentices' future survival as independent entrepreneurs (Fluitman, 1994). Ultimately this may help them to enter the labour market more easily than institution-trained TVET graduates. According to the findings of the Ghanaian Manufacturing Enterprise Survey (table 4.11), the majority of traditional apprentices gained wage employment in the field in which they had trained. 28.5% had gone on to start their own business and only 1% were known to be unemployed.³⁵

Table 4.11 Activities of Apprentices after Apprenticeship

	Percentage of former apprentices in different activities
Continued working for the firm	37.5
Worked for another firm in the industry	15.2
Worked for a firm in another industry	3.2
Started their own business	28.5
School	1.1
Unemployed	1.0
Don't know	17.8

Source: Frazer, 2006: Appendix, Table 3

Traditional apprenticeship skills training represents the most accessible source of training for the poor. Relative ease of entry into informal skills training means that traditional apprenticeships are by far the most widespread source of skills training in West Africa (and SSA more widely). They provide a cheap way for the poor to acquire skills and as an important source of technical skills for those who cannot access formal training. Traditional apprenticeship is much cheaper than formalized training. For example, a carpentry apprentice in Ghana might typically pay about 500,000 cedis (c.£30) total for a three year apprenticeship. A formal vocational school might charge up to one million cedis (c.£60) a year for three years. Parents can often pay for apprenticeships by instalments. This makes traditional apprenticeship a viable, and the more accessible, destination for basic-education graduates. However, the very poor may still be excluded (Palmer, 2007a; World Bank, 2004a: 145).

The research implies that there is limited potential for state-provided TVET institutions in Tanzania, Kenya and Ghana to contribute significantly to poverty reduction in their current form. However, alternative models of provision through NGO-run training centres as in Tanzania or through apprenticeships, as in Ghana, may have greater potential for directly benefiting the poor.

³⁵ There could be a significant number of unemployed ex-apprentices out of the 17.8% classified as 'don't know'.

Chapter 5: Education, Training and Enabling Environments

Summary and Core Issues

- Chapter 5 explores the concept of the enabling environment in light of the research findings from the country studies, as discussed in Chapter 4, and the international studies discussed in Chapter 2. We argue that the politically attractive claims that schooling directly ‘makes a difference’ to productivity need to be qualified in two ways:
 - These allegedly developmental effects of schooling are almost certainly dependent on other facilitating conditions being present – in the social, cultural, economic and political environments.
 - These powerful impacts claimed of education are unlikely to be present – even in environmentally promising conditions – if the quality of the schooling or of the skills training is of a very low quality. Commonsense would suggest that a school affected by massive teacher absenteeism and low morale can have little impact on other developmental outcomes.
- Furthermore, this chapter notes that it is essential to question the capacity of developing economies, and especially their informal economies, to realise automatically the many positive outcomes that are often claimed to be associated with skills development through education and training.
- Education and training outcomes are obviously determined by many other things such as the quality of the education and training and the state of the enabling environment surrounding schools and skills centres.

This chapter takes the concept of the enabling environment – as discussed in Chapter 2 – and develops it both in relation to the wider internal educational environment and then to the environment beyond the school and the vocational training system. It emphasises the need for education to be embedded in a wider environment of a particular kind – for its expected social and economic impacts to be most evident.

In Chapter 2 we argued that the translation of education and training into poverty reduction depends on:

- **The delivery context** – the education and training system itself, at both basic and post basic levels;
- **The transformative context** – the interaction of education as a whole with change in the larger economy.

Here we argue that an understanding of these contexts and the potential role that post-basic education has in their development is necessary if education for all is to be sustainable and if its benefits are to be realised. The policy of single-mindedly targeting just one sub-sector, such as primary education or girls’ education, in order to reach these education goals is unlikely to achieve the desired outcomes.

We argue that the politically attractive claims that schooling directly ‘makes a difference’ to agricultural productivity need to be qualified in two ways. First, these allegedly developmental effects of schooling are almost certainly dependent on other facilitating conditions being present – in the social, cultural, economic and political environments. And, second, these powerful impacts claimed of education are unlikely to be present – even in environmentally promising conditions – if the quality of the schooling or of the skills training is of a very low quality. Commonsense would suggest that a school affected by high teacher absenteeism and low morale can have little impact on other developmental outcomes.

Furthermore, this chapter notes that it is essential to question the capacity of developing economies, and especially their informal economies, to realise the positive outcomes that are often claimed to be associated with skills development through education and training. Education and training outcomes are obviously determined by many other things such as the quality of the education and training, and the state of the enabling environment surrounding skills development.

The quantity and quality of human resources produced depend on both the delivery capacity of the formal and informal education and training system, and on the demand for these resources in a given country. It is not simply a case of increasing the supply of educated and skilled workers through investing heavily in expanding the provision of education and training. Education and training, alone, do not result in increased productive capacity in the form of employment. Nor, by the same token, do they, alone, result in poverty reduction or growth. If the skills cannot be put to use, potential capacity may be increased, but actual productive capacity will not be (King and Palmer, 2006a). Hence there is a crucial difference between skills development (the capacities acquired) and skills utilisation.

This chapter takes the concept of the enabling environment, and develops it both in relation to the wider internal educational environment and then to the environment beyond the school and the vocational training system. We argue that the concept of the enabling environment is much more complex than the simple dichotomy between modern and non-modern.³⁶ Many other dimensions of the environment determine whether the investment in basic education will be productive.

Education and training in general contribute to development but only in the context of: i) a conducive internal education and training environment (the delivery context), and ii) a conducive external (non-educational) environment (the transformative context); The delivery context incorporates both the importance of school quality *at all levels* of the education and training system and what might be termed a ‘post-basic education and training environment’, while the transformative context would be the environment that is outside the education system itself, such as the character of the macro-economic context, or in other words, ‘the wider non-educational environment’. Thus, secondary and tertiary education, and (formal and informal) skills development all form part of a post-basic education and training environment which may well be required to be substantial and accessible in order to make primary or basic education fully effective. This means that post-basic education and training may themselves be a part of the essential enabling environment for basic education. Alongside this, and equally

³⁶ See also King and Palmer (2006c).

crucial, there is the need for a dynamic ‘non-education environment’ if education, in all its sub-sectors, is to deliver its full developmental impact. The interplay between these two kinds of enabling environment is highly complex, especially since, as we argue at length elsewhere (King and Palmer, 2006c), the post-basic education and training system has itself a direct impact on these non-educational environments. To explore these and other issues we examine the synergy between basic education and the wider educational environment beyond the primary school.

5.1 The delivery context

As we noted above, conceptually the delivery context might be divided into: i) the ‘quality schooling environment’; and ii) the ‘post-basic education and training environment’.

This ‘quality environment’ is the most widely discussed in the literature in relation to education and training; so we shall not go into detail here describing the importance of textbooks, trained teachers, and schooling infrastructure which are already accepted as absolutely critical.³⁷ What we are more concerned with emphasising here is how two other environments serve to influence this ‘quality environment’ and the outcomes of education and training for better or worse: the ‘post-basic education and training environment’ and the ‘external (non-educational) environment’.

We shall look first at the ‘post-basic education and training environment’ and examine some of the ways in which PBET supports basic education. We are not suggesting, however, that there is not a two-way relationship between basic and PBET. Indeed the graduating students of basic education are the inputs to any PBET system. The quality of PBET is, therefore, also dependent on a solid grounding of quality basic education.

5.1.1 Secondary education and basic education

The new World Bank issues paper on secondary education (World Bank, 2005b) highlights a number of key points that show post-basic education to be essential for the health of basic education.³⁸ Specifically, it makes a number of powerful arguments about the interaction of secondary and primary education, and not least on the leverage secondary education has in maintaining the quantity and quality of primary, and thus assisting with achieving the MDGs of education:

Investing in secondary education can have a direct impact on the effort of reaching Millennium Development Goal 2 [Achieving universal primary education] (World Bank, 2005b: 21).

The United Nations Millennium Development Goals (MDGs) for education can only be achieved through systematic policies for postbasic or postcompulsory secondary education (World Bank, 2005b: xix).

³⁷ For a recent discussion on the importance of schooling quality, see UNESCO (2004).

³⁸ See Lewin (2003) for a number of reasons why a new policy for (formal) secondary education in SSA is needed. See also Palmer (2005; 2006a) for an argument for a more balanced education system in Ghana.

One thesis, subscribed to by the Bank, that concerns the interaction of secondary with basic education is that “[i]ncreasing the provision and coverage of secondary education can boost completion rates in primary education” (World Bank, 2005b: 21). Evidence for this thesis has been tabled previously by Lavy (1996) who found that improving access to secondary education in Ghana not only improves enrolment at the secondary level, but acts as an incentive for primary completion.³⁹ But if the thesis is that better access to secondary education will increase primary completion, then it follows that if a country has low enrolment and access at the secondary level, primary completion might also be low. But the case of Tanzania, which has reasonably high primary completion rates (74% in 2001/2) and very low transition rates to secondary (19% in 2001/2), suggests that there are clearly other factors in play.

5.1.2 Contribution of secondary and tertiary education to primary education

The precise nature of the relationship and interactions amongst primary, secondary and tertiary education is clearly complex. The World Bank’s issues paper on secondary education (World Bank, 2005b) points to two-way relationships between different sub-sectors of education. Primary education rates boost the demand for secondary, while secondary expansion creates a powerful incentive for primary completion. In developing countries, where teachers are often trained after completing the secondary level, secondary expansion will result in the provision of more teachers at primary level (World Bank, 2005b: 26-27).

A 2002 World Bank publication, *Constructing Knowledge Societies: New Challenges for Tertiary Education* (World Bank, 2002), makes a similar point about the vital importance of tertiary education for reaching the education MDGs, as well as providing the necessary professionals for the entire education system. The paper argues that tertiary education is particularly crucial for the development and training of a wide range of health staff. Tertiary education therefore contributes indirectly to both the education and health MDGs:

It is doubtful that any developing country could make significant progress toward achieving the... MDGs for education... without a strong tertiary education system. Tertiary education supports the rest of the education system through the training of teachers and school principals, the involvement of specialists from tertiary education institutions in curriculum design and educational research... A similar argument applies to the contribution of postsecondary medical education, especially the training of medical doctors, epidemiologists, public health specialists, and hospital managers, to meeting the basic health MDGs (World Bank, 2002: xx-xxi).

5.1.3 Skills training as part of a post-basic education and training environment

The relationship between formal and informal skills training and basic education is somewhat different from that which we have described for secondary and tertiary – though there are also similarities. Essentially, it is that parental and pupil aspirations to acquire skills in order to get work or a job provide an important motivation for being in basic education. The expansions of the basic cycle thus make it crucially important for there to be evidence of opportunities after basic education for skills development.

³⁹ See also Lewin (2005).

This concern with the employment of graduates was the principal reason that the World Bank, almost from its first education project and for 20 years thereafter, supported diversified secondary education – with agricultural, electrical, automotive and home economics options – rather than general secondary. But unlike the Bank’s support for primary education, with its research link to agricultural productivity, and other outcomes, the case for investing in diversified secondary schooling was not based on research at all. Bank staff in the 1960s and 1970s merely felt there was an obvious link to worker productivity from such curricula:

This (general secondary) education is dysfunctional for most types of employment – wage or non-wage – and for playing other roles needed in a developing society...The content of education must be re-oriented to relate skills taught to jobs, thereby ensuring that graduates can be employed. Emphasis on vocational and technical schools and centres, and attempts to ‘vocationalise’ the curricula of academic schools are illustrations of attempts to achieve such an orientation (World Bank, 1974: 21-2; also Jones, 1992).⁴⁰

It was not until Wadi Haddad began to carry out an analysis in 1979 of all the 80 projects that had ever been funded in the area of diversified secondary education (Haddad and Conly, 1987) and an evaluation of diversified education in Colombia and Tanzania showing very limited returns (Psacharopoulos and Loxley, 1985) that the older policy was shifted by research. It would not be until 1991, some 30 years after the Bank had started lending for TVET, that there would appear a research-based policy on the sub-sector of skills development as a whole (World Bank, 1991). This would reaffirm the criticism of school-based TVET, but would argue for strengthening primary and secondary education – “Training in specific skills is more effective when it builds on a strong foundation of general education” (World Bank, 1991: 9). So, again we have a clear statement about the necessary interaction between skills development and basic education.

Over a decade later the debate about the relationship between basic education and skills development has shifted again. Arguably, a combination of the research-based policy for primary education investment, and of the associated case for donors and governments meeting the MDGs in Education was promising to produce some of the largest cohorts of basic education graduates ever witnessed in a substantial numbers of countries. Yet this was occurring at a time when formal sector employment was continuing to fall, and the great majority of all school leavers were obliged to enter the informal, micro-enterprise economy, both urban and rural. In Sub-Saharan Africa, for instance, it is estimated that the informal economy is now responsible for 93% of all new jobs (Chen, 2001). In India 92.5% of the workforce operate in the informal or unregistered economy (Jhabvala and Subrahmanya, 2000: 2).

All the evidence since independence about the series of big swings towards free UPE indicates that parental commitment to primary school attendance for all their children will depend on some clear indication of improved opportunities for skills development and/or formal post-basic access on the one hand, and equally evidence of a relationship between basic education and ‘decent work’ through increased income generation in small and micro-enterprises (SMEs) on the other. Politically, therefore, those proposing massive investments in UPE/EFA need to be able to answer the question: ‘EFA – for what?’ – in other words, how does primary school attendance link to post-primary outcomes? (cf. McGrath and King, 1999: 10).

⁴⁰ On the history of the Bank’s involvement in skills development, see King (2003).

This necessity to connect the MDGs (especially the Education MDGs with the Poverty Reduction Goal (Target 1) and with the Decent and Productive Work Goal (Target 16)) underlines the need to point to the immediate post-school and income benefits of EFA. The sustainability of the current unparalleled investments in basic education will be determined by such evidence. The next few years' experience of the quality and outcomes of EFA will determine whether the massive numbers of often poor, first generation school-attenders and their families will continue their new commitment to schooling. Unless the benefits are easily identifiable to the poor, it is likely that parents will become disillusioned and enrolment rates will subside as they did in many African countries following earlier pushes for UPE (Williams, 2005).

From the parents' and pupils' perspective, one of the key facilitating conditions (or enabling environments) for learning at one level is the opportunity either for continuation to another level or for access to productive work outside the school. The skills development sub-sector is therefore in a two-way relationship with basic education: like the secondary and tertiary sub-sectors its size and accessibility provide a key rationale for staying the course in primary education; but it is also seen to be very closely linked to the process of securing a job. Nowhere is the latter more obvious than in the informal economy since this provides both skills training and an opportunity for (self-) employment.⁴¹

Formal skills development overlaps with some of the discussion here related to secondary and tertiary levels, since much formal skills training occurs in these settings. However formal skills are also taught in formal vocational and technical training institutes. A usual prerequisite for entry into this sort of training is a basic education qualification. The availability of formal skills training, of good quality and relevance, might encourage parents and children to complete basic education – as there is then a next stage to go to. However, formal TVET usually receives a small amount of the education budget and has been criticized for generally low quality and being of little relevance to the labour market. Moreover skills development programmes are often delivered from multiple ministries and most countries lack a coordinated skills development strategy (Box 5.1). Thus a formal skills development reform – to improve quality, access, relevance and coordination – would be of great indirect benefit to the basic education system.

⁴¹ See Palmer (2007a; b) for a discussion of skills development and enabling environments in Ghana.

Box 5.1 Uncoordinated Skills Delivery in Ghana and the Arrival of COTVET

In Ghana technical and vocational education and training (TVET) takes place under no less than nine different ministries at the school level, in institution-based, vocational skills centres, institutes and colleges and in the informal sector in apprenticeships. Traditionally, therefore, it has been very hard for coordinated skills programmes to be delivered. This, however, might be changing. Policies for TVET and for youth employment have been of priority concern to national policy-makers and to development partners during 2006. Parliament just passed on 27th July 2006 a Bill to establish a Council for Technical and Vocational Education and Training (COTVET), which has been almost 10 years in the making. Its remit is to formulate national policies for skills development across the broad spectrum of formal, informal and non-formal education. A policy framework for TVET has been consulted upon and finessed over this same period of 10 years, and it has been agreed that the reformed system will be 'demand-driven' and 'competency-based' in order to help close the currently huge gap between skill acquisition and the employment demands of the world of work.

Hitherto, the challenge to link skill with poverty reduction has been secured by a series of ad hoc training schemes. With the Council (COTVET) in place, the expectation is that a comprehensive demand-driven system can be established and financed.

5.1.4 Concluding comments on the post-basic education and training environment for primary education

In contrast to the simple research messages that have steered investments towards primary education, the research evidence is more complex and less clear in offering guidance on policies for managing the relationships between basic education and the wider environment of post-basic education. There is, however, a lot of commonsensical, experiential and historical analysis of the impact of post-basic levels of education upon the first cycle. This concerns several key dimensions of primary education systems, including the retention of children, aspirations for continuation, and the maintenance of quality. These all depend on strong secondary, vocational and tertiary levels of education and training.

In concluding this analysis of the essential synergy of the wider educational environment for the health of the primary education sub-sector, we should perhaps return to the language of 'non-modern' and 'modernising' environments used in the Lockheed et al study. Just as they sought to argue that the impact of primary education was influenced by the dynamism of the agricultural environment, so it could be argued that the dynamism of the wider post-basic education and training environment itself must inevitably influence the effect of the primary school experience. Thus, if the accessible secondary schools for poor children are of very low quality, e.g. the municipal schools of some of India's cities, then may they not have the same impact on primary school aspirations – and even achievements – as a stagnant agricultural environment may have on farm productivity?

Such an approach would suggest that the quality and the standards of the post-basic education and training system will have a powerful back-wash effect on primary. If youth polytechnics, as in

Kenya today, are very poorly provided for, and therefore perform poorly; they will, like the public municipal secondary schools of India just mentioned, fail to act as targets for student and parental aspirations right back to the primary schools. Equally, from the point of view of the children of the poor, if the only secondary schools of good quality, whether private or public, are associated with high fees, it will have a direct impact on the attitudes towards the continued schooling of children in the primary level. Therefore, while the declaration of genuinely free primary education may still be able to draw many children initially into the primary sector, there is circumstantial evidence that the reason that many such first generation children drop out and are not retained is because there is no pro-poor pathway to an accessible good quality environment at the post-primary level.

Evidence presented in Chapter 4 showed that the primary education currently available to the poor in our six countries offers only limited benefits in terms of poverty reduction. For greater benefits either the period of schooling needs to be extended or the quality needs to be improved. Whilst many countries are not currently able to afford universal post-primary education, access to post-primary education needs to be a feasible possibility to maintain quality and enrolment at primary schools in the poorer areas. It is too often the case that the economically poorest children find themselves in the poorest primary schools, with the least committed teachers. These students are unlikely to perform well and even if they did, there may be nowhere for them to further their education. If there are no realistic or affordable opportunities for post-primary education there will be little incentive for teachers to improve the quality of instruction and for students to attend. These 'stagnant' environments need targeted input at two levels – both in improving the quality of the primary education and in improving access to post-primary training. Inputs at the primary level alone are unlikely to impact on quality unless the motivation and aspirations of teachers and students are improved.

5.2 The transformative context: education as part of a wider multi-sectoral approach

We shall now turn to the relationship between the whole education and training system and the external (non-educational) environment that is outside the education system itself, in which the skills and knowledge gained from education and training can be transformed into greater productivity and behavioural change that can lead to improved health and social conditions.

As noted in Chapter 2, three current documents have started to discuss the crucial importance of seeing the expected outcomes and quality of education within such wider enabling contexts.⁴² These are the UN Millennium Project Report (United Nations Millennium Project, 2005a) with its associated Task Force Reports, the Commission for Africa (Commission for Africa, 2005), and the World Bank's policy paper on education, the *Education Sector Strategy Update (ESSU)* (World Bank, 2005a). There are of course many other sources that also underline the importance of the external context for its impact on what happens in schools, for example the EFA *Global Monitoring Report (GMR)* on Quality (UNESCO, 2004).⁴³

⁴² For an earlier discussion of these three sources, see King, 2005b.

⁴³ The GMR on Quality highlights the importance of external contextual factors that impact on the quality of an education system. Some of these factors include: the economic and labour market conditions; socio-cultural and religious factors; aid strategies; educational knowledge and support infrastructure; public resources available for education; parental support; labour demands (UNESCO, 2004: 36). There is, however, less explicit discussion on how external contextual factors impact on educational outcomes. Rather, this is implicit in the discussion related to context and school quality.

The UN Millennium Project Report makes a very explicit connection between the external environment and potential educational benefits. Its message is clearly that the goals cannot be reached by aiming only at them. Just as EFA, it argues, cannot be reached by focusing only on basic education, but needs a more holistic approach to the whole education sector, including vocational training and higher education, so the goals as a whole need to be embedded in a much larger development project if they are to be secured.⁴⁴ The report conceives that the impact of schooling is inseparable from other MDG-related initiatives in health, gender equity, water, environment and decent work, as well as the wider development investments just mentioned.

This general message of the main Millennium Project Report is strongly confirmed and elaborated by its Task Force Report on Education and Gender Equality, *Toward Universal Primary Education: investments, incentives and institutions* (Birdsall et al, 2005). The Task Force puts the position very sharply – “the education system cannot do it alone” (ibid.: 23) and argues that “countries cannot depend on the education system alone to be the engine of economic, political and social change” (ibid.: 30). The Task Force calls for structures and sectors outside of education to be supportive of the education system since “the benefits of education are conditioned by the [political, social and economic] context” (ibid.: 27).

Indeed it is worth noting that the Task Force considers this enabling environment to be so vital to the impact of education that it dedicates a whole sub-section of the report to precisely this matter: “**The benefits of education are conditioned by the context**” (ibid.: 27). It sees the economy as impacting very directly on both the supply and demand for education. On the supply side, there are fewer resources to invest in education in stagnant economies. And on the demand side, when economies are growing very slowly, the returns to education are less, and this has a knock-on effect on incentives to send children to school. But the Task Force also sees the social and political environments as hugely influential on education. Not that this means a kind of determinism. “But what it does mean is that the achievement of universal primary education must be supported by both positive actions within the sector on the one hand and a progressive political environment and sound economic and social policies on the other” (ibid.: 30). Interestingly, the Report identifies sound policies as being the responsibility of both the developing and the richer countries, since international trading regimes, for instance, are also part of the external environment that can have an influence on primary schools and their financing. Here, therefore, we already have several critical environments outside the school: the macro-economic, the political, and the international, as well as recognition of what we have just discussed – positive actions within the education sector.

The Commission for Africa was published in March 2005, and like the UN Millennium Project Report, it is really proposing a massive integrated development project.⁴⁵ The Commission dedicates an entire chapter to ‘Going for Growth and Poverty Reduction’, and the contents of that chapter make it crystal clear that the priority conditions for growth are major investments in physical, transport, and communication infrastructure, in a positive investment climate for entrepreneurship development, along with political commitment and good governance. Substantially more external aid is also a requirement. But the bottom line is that, without these, the very large proposed investments in health and education will not be sustainable. One of the

⁴⁴ For a detailed and critical account of the Millennium Project Report, see King and Palmer (2006b) and Ellerman (2005).

⁴⁵ See also King (2005a).

Commission's gravest concerns is with the weakness of institutional and organisational capacity in Africa to deliver development. This is another way of underlining the crucial importance of the political and social environment in which the education investments are embedded.

Our third 'development text' is apparently much more narrowly focused on a single sector, education. But the World Bank's *Education Sector Strategy Update [ESSU]* (World Bank, 2005a) again emphasizes the vital importance of inter-sectoral linkages. It argues for linking education with overall developmental efforts, through summarizing a whole series of two-way relationships between education and health, social protection, water and sanitation, transport, energy, public-sector management, private sector development, social development and agriculture, rural development and the environment (World Bank, 2005a: Chapter 2). The *ESSU* notes that these inter-linkages with other sectors can actually help strengthen educational outcomes and that integrating education with other sectors is crucial for the education MDG and other MDGs to be attained.

In fact, the *ESSU* suggests, like the Commission for Africa, that it is absolutely necessary for the education community to be aware that there are governance issues that can dramatically undermine education outcomes. In other words, the education sector cannot be conceived of as existing in a silo by itself; it is intimately affected by the wider political environment, and, given the costs associated with corruption, it is the children of the poor who are most affected by failures to intervene:

A governance issue that poses a fundamental threat to education outcomes is **corruption**. It is essential that sector assessments identify the problem – whether it occurs outside the education sector (buying and selling of civil-service jobs) or inside (buying and selling of grades or admission to preferred schools) – and remedial options. Education interventions can contribute to higher standards of integrity (World Bank, 2005a: 11, emphasis in original).

Furthermore, as far as access to scarce formal sector jobs is concerned, it is clear that meritocracy does not apply in all cases. Evidence is emerging in Kenya that young people, including those who do not come from influential families, may well need to pay up-front even to be considered for secure jobs in the public sector (cf. King, 2006; Box 5.2 below). It is important not to exaggerate the possibility that corruption may undermine the traditional connections between hard work, merit and success in national education and training systems. But if it becomes widely believed that access to scarce public sector jobs, after school, and to subsequent promotion depends not on open, meritocratic competition but on the ability to pay, or on networks of influence, then this too could directly affect the aspiration to improve quality, and could impact particularly severely on the new generations of poor children moving through the school system.

Box 5.2 Education and Training Outcomes Disabled by Corruption in Kenya

It is then a matter of concern to note that at the very time that the new plans for education and enterprise are being prepared through the Sessional Papers, there continues to be a very lively debate about the extent of corruption in Kenya, even since the new government came to power with its pledges of zero tolerance. Indeed, if corruption continues to be as widespread as is claimed by the representatives of several of Kenya's leading donor countries, then it will prove a disabling environment for the operation of education-based merit systems, and all the bursary schemes proposed by *KESSP*:

The unpleasant reality is that corruption in most of its forms is currently rampant in Kenya. It distorts policy formulation, obstructs the delivery of proper services, puts or keeps wrong people in jobs for dubious reasons, diverts scarce resources and loots the public purse (*Sunday Standard 21.11.04*).

Beyond this and many other accounts of corruption covered in the media, there are more sober academic analyses of corruption which come to a similar conclusion – that corruption leads to the creation of an alternative structure that affects very directly the economic, social and political environment (Mullei, 2001: 5).

Source: King (2006)

A number of economists (for example, Nelson and Phelps, 1966; Schultz, 1975; Welch, 1970, 1978) have suggested that a technically dynamic environment enhances the returns to education and general skills as more educated individuals are better able to make decisions and evaluate information in situations of economic disequilibria (changing economic conditions). In fact, there is much empirical research evidence showing that in technically dynamic environments, the returns to education are increased (Benhabib and Spiegel, 1994; Foster and Rosenzweig, 1996; Rosenzweig, 1995).⁴⁶ But what we are pointing out is wider than just the importance of a technically dynamic environment. We are indicating the importance of changes in the other key sectors of the wider economy that serve to catalyse the seemingly axiomatic education-development outcomes.

In the Bank itself, two of the most essential, and commonly mentioned, external conditions are a strong national macroeconomic environment and a strong political commitment at the country level. The need to have a strong macroeconomic environment in place that promotes a rapidly growing economy – and growth that creates employment – is crucial. Stagnant growth, or growth without job creation, would be disabling to educational outcomes. Strong political commitment and good governance are also crucial. But there are many other critical, enabling systems mentioned in Bank documents. They would include: a strategic policy framework and underlying policy assumptions (see Box 5.3 on Ghana and Kenya); a need to balance quality and quantity; a focus on equity; adequate financing; data to guide policy; partnerships with the communities and with donors; cultural and contextual factors; enforceable contracts in relation to property rights; access to capital and to microfinance; infrastructure and ports; and access to

⁴⁶ The Lockheed, Jamison and Lau (1980) findings obviously also support this thesis.

technology. Among the most critical factors in such an environment will clearly be work and employment, but there are many components, both national and international, that determine whether a specific labour market environment is either enabling or disabling (see Box 5.4 on Tanzania; and Box 5.5 on ‘Doing Business’).

Box 5.3 The Education and Training Policy Environment: Making Education More Relevant to the World of Work in Ghana and Kenya

In both Ghana and Kenya there have been repeated connections made between education and training reforms and the world of work. Education reforms have altered the shape and content of the education and training systems in attempts to orientate the youth more towards work. In Ghana, for example, the education reforms in the late 1980s introduced the Junior Secondary School system which was intended to be highly vocationalised in an attempt to alter pupils’ aspirations towards work. In fact in Ghana repeated reforms and government statements have – since the mid nineteenth century – consistently asserted that in order to solve the problems of youth unemployment more emphasis should be placed on TVET within the formal education and training system. The most recent education reforms in Ghana (see Box 4.1) on the one hand acknowledge that the vocationalisation of the junior secondary curriculum has failed to orientate pupils towards work, but on the other, they now aim to diversify the senior secondary level (into four streams; vocational, agricultural, technical and general) and to massively expand TVET.

In Kenya the predominant concern throughout the 1960s and until the early 1990s has been with only one element in the relationship between the school and economic development – that of pupil aspirations for work and the prevailing employment situation. Over this 30 year period, this concern with employment and specifically a growing policy awareness of the nature and potential of the rural and urban informal sector translated directly into a more practical and vocationalised curriculum at both primary and secondary levels.

The policy environment concerning the education and training systems in these countries, therefore, appears very much to follow part of the underlying assumptions of the education and skills development agenda – that by altering the curriculum to make it more vocational, students will be better prepared for the world of work. But this assumption is partly fallacious; unemployment is an economic, not an educational problem, and changes in the school curriculum can do only a little to affect attitudes towards work without concomitant improvements in the environment, particularly the economic and labour market environment, outside of the education and training system.

Source: King (2006); Palmer (2005; 2007a)

Box 5.4 Farms, Enterprises and the Environment in Tanzania

In the past in Tanzania many crops were heavily taxed or could only be sold to state marketing boards for low fixed rates. As a result, there were few incentives for striving to increase farm output and to engage in sales through formal markets. The government banned private small-scale industries in ujamaa villages. Small businesses faced heavy taxation and licensing fees. Entrepreneurs were accused of being economic saboteurs.

By the early 1990s most cash crops could be sold directly to the buyers. More recently “nuisance” taxes which used to include a tax on items such as cows, fishing nets and bicycles have been scrapped and a cap was put on agricultural produce cesses levied by local councils. Attitudes to entrepreneurs have changed, both in government and society. Entrepreneurs are seen as key to national development of the country and the licence fee for small businesses has been abolished. However, liberalisation of the financial sector and privatisation of national lending bodies has led to raised interest rates and closure of rural facilities, thus reducing the access for the poor. Farmers’ access to credit fell during 1995 to 1999, limiting their access to farm inputs.

In recent years the environment in Tanzania has become much more supportive of enterprise and small businesses, enabling individuals to capitalise on their education. But poor roads and services in rural areas remain inhibiting factors in the relationship between education and poverty reduction.

Source: Wedgwood (2005)

Box 5.5 Doing Business in South Africa, Kenya, Ghana, India Tanzania and Rwanda

The World Bank's 'Doing Business' database provides measures of business regulations and their enforcement, comparable across 175 economies. They indicate the regulatory costs of business and can be used to analyze specific regulations that enhance or constrain investment, productivity and growth. This data is able to provide some measure of what we have been terming the 'economic and labour market environment', albeit only referring to the formal and urban sectors (see * below). South Africa's formal business environment ranks highest amongst the six countries (29/175). Rwanda and Tanzania, on the other hand, are ranked particularly low down (158/175 and 142/175 respectively). Djankov, McLiesh and Ramalho (2006), using data from 135 countries in the World Bank 'Doing Business database', compare the impact of improving business regulations with other commonly used determinants of growth: primary school enrolment, secondary education, inflation, and government consumption. They find that the effects of these variables on the rate of growth are lower than the effect of business regulations, pointing to the absolutely critical importance of the labour market environment.

Table 5.1 Doing Business in South Africa, Kenya, Ghana, India Tanzania and Rwanda (economy rankings out of 175 countries, April 2006)

	South Africa	Kenya	Ghana	India	Tanzania	Rwanda
Doing Business Ranking	29	83	94	134	142	158
Starting a Business	57	111	145	88	127	58
Dealing with Licenses	45	24	83	155	172	133
Employing Workers	87	68	120	112	143	106
Registering Property	69	115	113	110	157	134
Getting Credit	33	33	117	65	117	159
Protecting Investors	9	60	33	33	99	162
Paying Taxes	74	127	77	158	113	83
Trading Across Borders	67	145	61	139	67	175
Enforcing Contracts	43	67	50	173	65	69
Closing a Business	65	128	94	133	105	151

Source: World Bank, 2006b

* The World Bank Doing Business data is based on businesses operating in the formal sector of a country's most populous city, especially small and medium sized firms. The data refers to businesses that are expected to have start-up capital of 10 times income per capita at the end of 2005. The 'doing business' database, therefore, does not refer to the bulk of the private sector in many of the countries in this report, those operating in micro-enterprises in the informal sector (in both urban and rural areas). For more information see www.doingbusiness.org

Despite the fact that the World Bank has often focused on a single subsector it has, nevertheless, seen investment in education as one part of a wider multi-dimensional approach to development. Thus, the 1980 *Education Sector Policy Paper* of the World Bank places a limitation on the effects that education alone can have, and emphasises this multi-dimensional approach:

What education can do, however, is constrained by, among other things, the prevailing economic order, political power, and social structure. Education is certainly most effective in settings in which several interrelated policies and programmes fostering social and economic improvement are simultaneously at work... One must think of education, therefore, not only as a 'sector' of development – parallel, for example, to agriculture or industry – but as a pervasive element that must be integrated – horizontally and vertically – into all development efforts (World Bank, 1980b: 14).

Later World Bank policy papers in education and training (e.g. World Bank, 1988, 1995, 1999b, 2005a) all tell a similar story.

The Global Monitoring Report (GMR) of 2006: *Literacy for Life* (UNESCO, 2005) provides very powerful confirmation of the need for there to be a very supportive environment if the many benefits of literacy are to be secured. The provision of literacy without a literate environment of newspapers, print media, libraries and postal services can be very challenging. More broadly, it is not only a literacy environment that is crucial; there are wider economic, social and legal contexts that are absolutely vital to sustaining new literates.

There is one other discourse that has become relevant to understanding in what circumstances education and training investments can become more productive, and those are the literatures on institutional development and on capacity development (UNDP, 2002a, 2002b, 2003; World Bank, 2005d; Sida, 2000). These approaches – and they are many and varied – see the wider legal, social and political conditions in different societies as being crucial to the effective operating of education and training systems. The theoretical foundation for this version of the enabling environment conceptualizes capacity building or development as having three levels, individual, organizational and institutional. Like the Commission for Africa, this approach focuses particularly on the public sector, and on its implementation capacity. It reaches a conclusion that a focus merely on the training of individuals and on the attempted creation or reorganisation of units in government is not likely to change public service management. Rather it is the wider institutional culture that so often determines whether individual investments in education can be used productively.

5.3 A disabling environment for education and training?

As we have reviewed the several different literatures on the wider context in which school and skill are inevitably embedded, it would sometimes appear that we were analyzing a set of relations between schooling (or training) and developmental impact at a time when the institutional environment was extremely disabling (cf. Kifle, 1998) (See Boxes 5.6, 5.7 and 5.8 on disabling environments in Rwanda, Ghana and Kenya).

Box 5.6 The Environment Outside of the Education and Training System in Rwanda

In the current context in Rwanda, various constraints to education and training exist. These include limited human and financial resources, structural weaknesses in the economy, low capacity within the GoR, and dubious prospects for political stability in the country and region. While it is recognised that a broad approach to education and training is necessary, this is hampered in reality by poor cross-ministerial communication and poor links between the education system and the labour market. Underlying this is a limited understanding of what the outcomes of education are in terms of socio-economic transformation at individual and societal levels. Assumptions are made, but the empirical evidence base is weak. Those actively engaged in the education system demonstrate poor knowledge about the transition of children and students from education and training to employment, and even poorer knowledge about what happens to those who fail to access education or to complete cycles.

In Rwanda, the education system has also had to deal with specificities resulting from the war and genocide – high numbers of orphans and female-headed households, widespread trauma, depleted infrastructure and a decimated skilled population – in addition to problems experienced in other sub-Saharan countries, such as HIV/AIDS, poverty and scarce resources.

Kifle has argued that the key task in this crisis is to develop Africa's 'capacity to create capacity' if there is to be sustained development and if the graduates of its education and training systems are to be used effectively. From his perspective, the so-called modernising environment looks extremely fragile. The environment outside of the education and training system in all too many countries appears to be disabling. But his critique is not very different from that of the Millennium Task Force on universal primary education which makes clear the capacity development and governance challenge of education:

Many countries with poorly performing education systems suffer from institutional weaknesses, including low management capacity, non-transparent resource allocation and accounting practices, and substandard human resource policies and practices. Incentive structures that fail to reward good performance create and reinforce the most deleterious characteristics of weak institutions (United Nations Millennium Project, 2005b: 6).

This is another way of saying that the benefits of education do not have an effect independent of context, culture and an enabling economic environment.⁴⁷ They are in fact conditioned by national and local capacity, as well by local traditions and values.

⁴⁷ "achieving the Goals of universal completion of primary schooling and gender parity in schooling depends, in particular, on a supportive economic environment" (United Nations Millennium Project, 2005b: 27-28).

Box 5.7 Disabling Environments Outside of the Education and Training System in Rural Ghana

The macro-economic and labour market environment: Approximately 90% of all employment in Ghana is in the informal economy, in both urban and rural areas. The slow growth of formal employment opportunities, especially in rural areas (resulting in a slow growth in the number of people with reliable salaries), combined with the rural nature of poverty, means that the rural informal economy operates as an income-constrained market, and people's buying power is weak overall. This restricts not only overall demand for products and services, but reduces the demand for training to improve quality since the market could not purchase better quality, more expensive, goods and services anyway.

The regulatory and legal environment: In Ghana, a key constraint to the informal economy remains the lack of rights over land and commercial assets. The need for enforceable property rights is crucial. Many workers in the informal economy find it hard to utilise their assets, which largely remain dead capital (though there is some informal mortgaging of cocoa farms). Constraints arise from the often contradictory policies of District Assembly and central government policy, in relation to tax collection, harassment and official procedures concerning micro- and small-enterprise (MSE) registration and start-up. Further, standards (eg. health and safety issues) and social protection that exist largely ignore the informal economy, especially in rural areas.

The infrastructural environment: Activities in the informal economy in Ghana are constrained by the poor infrastructural environment. Low access to piped water and sewage systems, mains electricity, hospitals/clinics, markets, extension and financial services, and education and training facilities, all serve to disable skills training outcomes in the rural informal economy. Women are particularly disadvantaged in their access to services in rural areas. Since women make up the bulk of the rural informal economy in Ghana, this is a particularly worrying matter.

The skills development and informal economy institutional environment: At present there is no clear coherent informal economy strategy. Government policy towards the informal economy has been neglectful at best, and disabling at worst. In mid 2005, the Ministry of Private Sector Development took over responsibility for the coordination of activities in the informal economy, but it is still too early to assess how they will be able to coordinate programmes from many different ministries. Indeed, lack of coordination between ministries has served to inhibit a coherent strategy from emerging in the past. Coordination between the two key ministries concerned with education, skills development and employment, the Ministry of Education and Sports and the Ministry of Manpower, Youth and Employment, is weak. Similarly, there is a lack of coordination between government ministries on the one hand, and the private and non-governmental sector on the other.

The strategic environment for skills and the informal economy: Firstly, both the financial and non-financial government programmes for MSEs in Ghana are weak, with women disproportionately disadvantaged in this respect. Most of the government programmes that purportedly target MSEs do not seem to be of any benefit to rural micro-enterprises, and instead tend to be aimed at the upper-tier of the informal economy or MSEs in the formal sector. Secondly, there is a mismatch between the relevance of skills provided through government training programmes and the demand for these types of products or services. Too often, government skills programmes cover only the traditional trades in rural areas, make no labour market surveys and sometimes result in saturating rural markets with too many youth trained in the same fields.

The post-training environment: After receiving skills, either through pre-employment or on-the-job means, youth are frequently faced with the absence of post-training support, especially in rural areas.

Sources: Palmer (2004a; 2004b; 2007b)

Box 5.8 The Relationship Between Education and the Economy in Kenya

Kenya at Independence was already known for its traditions of community self help in education. Its hundreds of Harambee (self help) secondary schools helped Kenya gained a pre-eminent position in the region for its secondary school coverage. This self-help tradition also encouraged the national spread of Village (later Youth) Polytechnics. Compared to its neighbours, Kenya had an opportunity structure in formal secondary education as well as non-formal post-primary education that was the envy of many other countries in Sub-Saharan Africa.

But despite this huge investment in education both by government and local communities, Kenya appears to have lost a good deal of educational ground during the late 1970s and through the 1980s and 1990s. There was a really major shift in the structure of education and new practical and vocational subjects were introduced across the country. However, this was implemented without any external resources, and at a time in the mid-1980s when structural adjustment pressures were impacting both on government and on community finances. During the 1980s the quality of Kenya's public education system was affected, and the phenomenon of drop-out and non-completion became more marked.

During the 1990s, Kenya's economic performance worsened due to inefficient use of public resources, loss of economic competitiveness, soaring costs of doing business, deteriorating security conditions, and loss of donor funding (World Bank, 2005c). The failure to generate growth increased poverty and worsened social indicators, including in the education sector. Indeed, the people of Kenya were now worse off than ten years earlier. The GER at the primary level dropped significantly from 105% in 1989 to 92% in 2002, largely due to the declining family incomes that made it difficult for many of the poorest families to meet the direct cost of education.

There is an urgent concern today in Kenya with the relationship between education and the economy; for example, there is an expectation that Kenya can become an industrialised nation by 2020, and there is an assumption that education and training should play a key role in achieving this objective. Yet there has been an underlying worry that the expansion of education and skills development systems – over the more than 40 years of independence – has not translated into the economic and social gains widely associated with such investment. While there continues to be a strong belief that investment in human capital has been recognised as a major factor of economic growth and hence poverty reduction, there is an acknowledgement that the cycle of human capital development is also largely dependent on a country's potential to grow at a rate that can sustain a population growth and structure, and generate enough resources for education and training. In other words, education and the economy are in an intimate, interactive relationship, and thus the persistent poor performance of the economy in the last two decades has raised poverty levels and discouraged household investment in education. The recent declaration of free primary education, in 2003, was an attempt to reverse the negative trends in education, but its sustainability will be inseparable from the accelerated growth in the economy, as will the goal of poverty reduction by 50% by the year 2015.

In recent years, economic growth has increased somewhat, with the economy growing by about 1.2 percent in 2002, 1.8 percent in 2003 and 4.3 percent in 2004. However, growth has been constrained by the high cost of doing business, political uncertainty and its impact on private investment, and in general a slow pace of structural reforms. At the current rates of annual economic growth, it will be a major challenge for Kenya to meet the Millennium Development Goal (MDG) indicators for health, poverty and water.

Sources: King (2006); World Bank (2005c)

5.4 Conclusion on a two-way relationship of education and training with their enabling environments

We reach the end of this analysis of the enabling or disabling environment with a realization that it is a good deal more complex than deciding whether primary graduates were entering ‘modernizing’ or ‘nonmodern’ contexts or settings. There are clearly a whole series of conditions that may well seem to determine whether schools and skills are to be used productively. But this does not necessarily mean that the output of schooling is entirely determined and conditioned by its surrounding context. Our reading of the relevant literature also suggests that education can also at least influence if not help to transform the wider context in which it operates. And it is particularly the post-basic education and training sub-systems that are held to have this transformative potential.

In research terms, what is intriguing about the argument for seeing education against a background of change in other sectors in the wider environment is that, like the case for the necessary interaction of primary with post-primary education, the policy is not research-based. Yet, increasingly, agencies are becoming aware that the wider infrastructure, whether in the availability of water, electricity or roads, is critical to whether the MDGs can be met let alone sustained:

Infrastructure also is critical to help us meet the Millennium Development Goals. When the poor don’t have water, they have to walk as far as it takes to find it. And that’s why Africans lose 40 billion productive working hours each year to carrying water.

We all know that infrastructure brings more than water, electricity, sanitation, telecommunications, or transportation. Infrastructure brings opportunities and opportunities transform lives (Wolfowitz, 2006: 6).

It is not just a question of there being more or less influence of education depending on modernising/stagnant or egalitarian/non-egalitarian environments or of education aspirations being determined by external factors – all of which are one-way relationships. More likely, basic education – and particularly post-basic education and training – may itself play a part in whether an environment is actually ready to absorb change or is open to new technology, or is critical of poor governance.

As the World Bank is keen to emphasise, there is no automatic connection between skills development and employment. “Training, by itself, will not create jobs and will achieve its objectives only where the conditions are right for economic growth” (World Bank, 2004a: 188). Hence, education-and-training on its own may be a key variable, but it is not a determinant of growth, job creation or poverty reduction.

Chapter 6: Conclusions

6.1 The importance of context in the education-poverty reduction relationship

Many of the poorest countries have made quick progress towards providing access to primary education for all citizens. Foreign donors have increased their support to the provision and monitoring of this. Sometimes this has meant shifting both donor and government funds away from other levels of education. Our six-country study shows that much of this effort could be wasted, and even directly damaging to the interests of poor people, if there is inadequate complementary attention paid to systems of post-basic education and training (PBET).

Even if poor people had access to good quality primary education at minimal cost, they would be rational in rejecting it if post-basic learning systems are weak, or the socio-economic context did not reward those who completed primary education. Without questioning the intrinsic value of UPE, we are here concerned with the challenges of providing further education and supportive contexts that make primary education sustainable and valuable.

The World Bank's early research has been taken to show that so many years of education directly translate into increased agricultural productivity, or, for girls, into reduced fertility. This research has been used to establish and support the common assumption of a linear relationship between investment in education and a set of positive economic and social consequences. Our analysis, by contrast, points to a less 'edu-centric' relationship between education and development. For there to be the many economic and social gains so widely associated with education, there needs to be a supportive environment within the education sector, as well as a positive political, macroeconomic and social environment. In other words, education cannot achieve these gains on its own. Free Primary Education will not automatically create a series of developmental benefits, even if it responds to the rights to education of tens and hundreds of thousands of children. From a poverty perspective, similarly, our analysis does not suggest that education can, **on its own**, somehow break the cycle of poverty.

We emphasise here the potential indirect educational contributions to poverty reduction of PBET. Even if PBET is largely inaccessible to poor people, it can still make two kinds of indirect contribution to poverty reduction, one within and one beyond the education sector. First, PBET is essential to the wider educational environment that makes basic education possible and sustainable – the delivery context. Maintenance and improvement activities in this educational delivery context include training teachers, developing new curricula, training educational managers and supervisors at all levels, and ensuring that parents and children see clear evidence of improved opportunities at the post-basic level. Secondly, PBET makes vital contributions to the wider non-educational environment – e.g. training agricultural and health professionals, employment creation, developing a knowledge economy, stimulating economic growth and promoting innovation, inventiveness and research that catalyses education-developmental outcomes at all levels of education. For poverty reduction to occur, PBET must contribute to this transformative context that allows knowledge and skills to translate into developmental outcomes.

This review of national and international research and policy relating to education, training and poverty reduction reveals the complexity of the relationship and points to fallacies that can arise through over-simplified treatment of the data and decontextualisation of correlational studies. These fallacies are illustrated in table 6.1.

Table 6.1: Fallacies Associated with Education and Poverty Reduction.

Fallacies	Comments and Corrections
The Causal fallacy: that increased primary education itself causes poverty reduction.	It can only do this in conjunction with improvements in other transformative forces, particularly post-basic education and labour markets.
The Human Development fallacy: that educational contributions to poverty reduction are best understood within the ‘human development’ paradigm which focuses on individuals’ knowledge and skills.	Most of the analysis of educational benefits falls within the individualistic ‘human development’ paradigm, for example by assessing rates of return from an individual perspective. Such analysis distracts attention from social processes which are crucial dimensions and drivers of development, such as trust, participation, security, and solidarity. All of these have strong mutually causative relations with educational systems. Even when individual outcomes are good in terms of skills and knowledge, social outcomes may be adverse (perpetuation of class and ethnic inequities; collective frustration when schooling fails to translate into employment).
The Insular fallacy: that primary education systems are relatively self-contained.	Equitable access, quality, and sustainability of primary education are all dependent on a broader delivery context which includes post-basic education.
The Pro-poor fallacy: that ‘pro-poor’ educational provisioning means focusing on primary education, and that ‘pro-poor’ is synonymous with ‘anti-poverty’.	Both parts to this fallacy are dangerous. The first part detracts attention from the need for pro-poor investments in post-basic education. The second part, more generally, mistakes direct targeting with final outcomes, and so neglects the various indirect pathways through which poverty is ultimately reduced – many of which have nothing to do with being ‘pro-poor’ but are to do with development in general, and with the prevention of poverty. Excessive emphasis on the MDG target of Universal Primary Education (UPE) is not necessarily either ‘pro-poor’ or ‘anti-poverty’ in the long run, given the crucial multi-way synergies between all levels of the education and training system.
The Sprint-to-the finish fallacy: that rapid progress towards UPE is necessarily a good thing.	This neglects the crucial dimensions of phasing, quality, and sustainability in evaluating UPE strategies. Quick progress towards UPE can be dangerous if it is out of step with progress towards better post-basic education, if it means compromising quality for the sake of quantity (and hence providing tokenistic equity while aggravating inequities in quality), or if it increases dependence on foreign aid.

In parallel with these but in the sphere of skills, there has been reference earlier to the vocational school fallacy, and what could be called the skills-equals-employment fallacy. Both of these are alive and well in Ministries of Education today.

The process of assisting a country to reach the Education MDGs may well require an understanding of different enabling environments – that of the education and training system itself, including the internal quality environment and the dynamic interaction of primary with post-primary provision – and also the interaction of education as a whole with change in the larger economy. DFID’s new policy Briefing which stresses that “Greater investment is needed at all levels of education if we are to reach the Millennium Development Goals” captures the importance of this holistic approach (DFID, 2006).

We argued at the beginning of this monograph that the politically attractive claims that schooling directly ‘makes a difference’ to agricultural productivity (UNESCO, 2002: 34) need to be qualified in two ways. First, these allegedly developmental effects of schooling are almost certainly dependent on other facilitating conditions being present – in the social, cultural, economic and political environments. And, second, these powerful impacts claimed of education are unlikely to be present – even in environmentally promising conditions – if the schooling or the training is of a very low quality.

Fig. 6.1 below tries to show visually what we have been discussing above. The key point to note here is the distinction between education, skills and knowledge acquisition, on the one hand, and skills and knowledge utilisation that can lead to poverty reduction and/or growth, on the other. Developing knowledge and skills in a labour force is one thing, but if people cannot utilize these because other supportive measures are not in place, then knowledge and skills development cannot lead to poverty reduction and/or growth. For the transformation of skill and knowledge acquisition into utilisation, education and training graduates need to enter into a context that enables them to apply what they have learned.

On the left, we list the different elements of education and skills development. Primary, secondary (general and vocational/technical) and tertiary education are all affected by what we term the delivery context, which includes the availability of teachers, text books, etc.⁴⁸ These different elements are reliant on each other as discussed below. In addition to being influenced by elements of the education and training delivery context, on-the-job training in both the formal and informal economies is affected by the wider economic environment.

Knowledge and skills development, therefore, result from the capacities that are acquired through different types and levels of education and training (shown by the solid arrow emerging from these different types of education and training in Fig. 6.1). But for knowledge and skills development to translate into poverty reduction – and growth – there needs to be a supportive transformative context. Hence, the extent to which the education and skills can contribute to poverty reduction and growth will be influenced both by the development and utilisation of the skills and knowledge of its population, and by the development of a supportive transformative context that allows skills and knowledge to be used productively.

⁴⁸ The education and training delivery context includes: supply factors: textbooks/ learning materials; management/ governance; curriculum; instruction time; language of instruction; school infrastructure; teacher quality/ incentives; demographics. Demand factors: user fees/other direct costs; indirect and opportunity costs; household income; distance; student health/ vulnerability; perceived returns to education (World Bank, 2005a).

The transformative context will depend on both the national and international environment (see dashed arrows at the top of the diagram). The international environment⁴⁹ impacts on the different kinds of national enabling environments: the cross-sectoral linkages;⁵⁰ macro-economic linkages;⁵¹ historical, social and cultural environment;⁵² and the labour market environment. Perhaps the most important aspect of these four enabling environments (given that work is the clearest pathway out of poverty) is the labour market environment. This might include: the growth in the economy and availability of more and better employment opportunities; the advancement, accessibility and adoption of technological capabilities; the development of an equitable 'infrastructure' for formal and informal enterprises; the presence of meritocratic access to both the formal and informal labour markets; and the availability of financial capital. Crucially, the transformative context will also depend on human capacities within the population, developed through the national education and training systems (see dashed arrow at the bottom of the diagram). Investment in primary education is crucial to PBET, but is not of itself sufficient. An enabling environment of PBET is also required. What we are arguing here is that *post-basic* education and training are necessary for the development of a transformative context that enables *all* education and training to be transformed into positive outcomes.

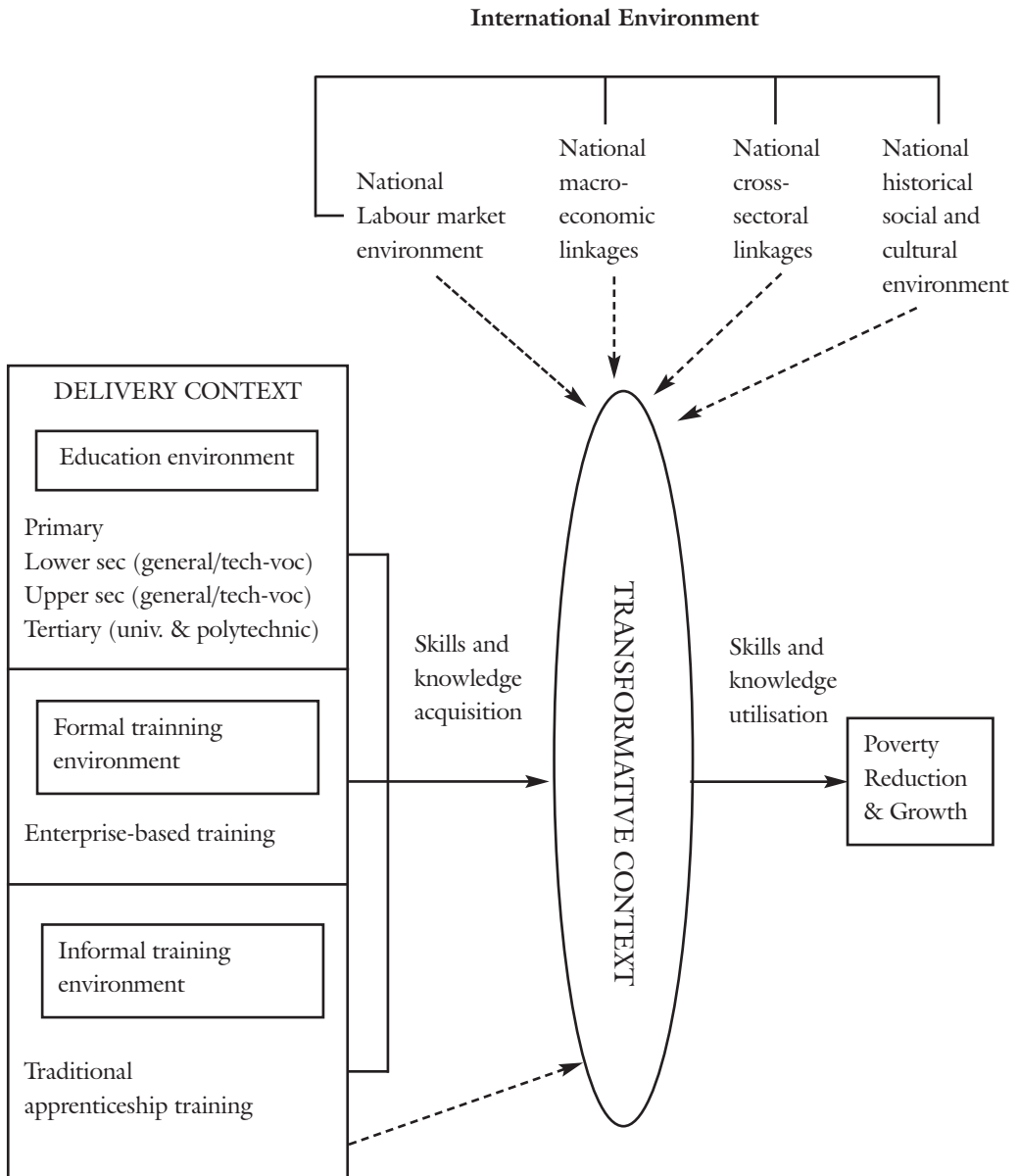
⁴⁹ For example, international trade regulations, aid policy and framework, global geo-politics debt.

⁵⁰ For example, water and sanitation; transport; health; energy; social protection; youth; agriculture; private sector development (formal and informal economy environment) (cf. World Bank 2005a).

⁵¹ For example, civil service reform; good governance and action on corruption; poverty reduction and inclusion; social cohesion and conflict; decentralisation; political economy of reform; knowledge economy goals; resource mobilisation and utilisation (cf. World Bank, 2005a).

⁵² For example, the development of social capital; cultural values and attitudes; societal values and norms.

Fig 6.1 Translating Education, Skills and Knowledge Development into Poverty Reduction and Growth



6.2 The delivery context: ensuring positive outcomes for basic education

Recognising the complexity involved in the simple UPE target means taking the delivery context seriously, i.e. looking at factors that will ensure or inhibit the sustainable provision of the education system itself. As the experience from Tanzania and Kenya has shown, primary education systems cannot be sustained without a reliable supply of educational providers trained at secondary and tertiary levels, or without realistic expectations that good primary performers will be able to progress to good secondary education or alternative training. Our analysis demonstrates that a holistic vision of education and training systems does exist within national policy environments. However, resources as well as national and international political imperatives have led to some areas being prioritised over others, hampering the coherent application to date of such integrated policies.

Unbalanced and rapid expansion of a sub-sector within the education system, such as the primary education sub-sector, can lead to a crisis of quality. This has implications for sustainability, which in turn may reduce equality, as the poorest families are unable to supplement low quality public education. It is doubtful whether significant gains in UPE or in gender equality can be sustained without more holistic approaches to education, based on clear thinking about synergies, trade-offs, and sequencing among the various components in national systems for learning. Poverty reduction and improved equality are more likely to be achieved if expansion takes place at a rate at which quality can be maintained. The rate of expansion needs to be limited by the rate at which quality teachers can be trained and employed.

There has been an apparent neglect of secondary education. In Rwanda, for example, the poverty reduction agenda of donors has focused on primary education whereas the government has tended to prioritise tertiary education in order to fulfil the long-term goal of making Rwanda an ICT hub. Secondary education has missed out within this tug of priorities. Experience from Tanzania has shown that the neglect of secondary education can hamper both the quality of primary education, through lack of well educated teachers, and the quality of higher education as the secondary graduates are not equipped with the necessary skills and knowledge for university study.

The skills development sector has also tended to be neglected within contexts where the MDGs dominate donor and national discourse. In Ghana, skills development has only received a tiny share of the education and training budget, and the state provision that is available does not appear to be very pro-poor. In Rwanda there is little apparent concern for those who fail to complete basic education or who do not continue in formal education after the basic cycle; it is simply assumed they will 'return to the hills' to take up their traditional forms of subsistence agriculture. The vocational education and training sector in most of the countries in this study does not appear to be providing the vital link between basic education and livelihoods.

In order to avoid the crises of teacher supply, limited post-primary opportunities and, at tertiary level, low capabilities among entrants, the different education and training sub-sectors should not be treated separately. Attempts to expand access to primary schooling need to take into account the quality and quantity of secondary education available and the other training trajectories available to school leavers.

6.3 The transformative context: translating education, skills and knowledge development into poverty reduction and growth

Promoting an education system optimised for poverty reduction means also exploring the transformative context, i.e. looking at factors that facilitate or inhibit the translation from learning to developmental outcomes. Pathways through these transformative contexts are never of the linear kind implied in bold statements about the effects of primary education. Many of the benefits of primary education can only be realised if school leavers can make links between what they have learned and what they can do, or if they can go on to acquire the further knowledge, skills, attitudes, and relationships needed to earn a living and to live well as good citizens.

A key aspect of the transformative environment is the labour market and the match between the skills needed within it and the skills provided through education and training. Ghana's education and training system has been repeatedly reformed since the mid-19th century explicitly to address the problems of unemployment and under-employment but with little success; since the transformative context was weak, the educational system was skewed towards basic education, and too much was expected from the education system itself. In Rwanda there are concerns about saturation of the employment market for skilled workers; however, Rwanda relies greatly on imported skills. The problem would appear to be less that of a saturated labour market but a mismatch between the supply and demand of different skill areas.

The research points to numerous contextual factors that can act as barriers to the realisation of the benefits of education. In Kenya, corruption and nepotism mean that jobs may not be awarded according to merit. This disrupts the relationship between education and earnings. In Tanzania, farmers were inhibited by strict state control of markets. Now they are inhibited by poor access to technologies, credit and markets. In these contexts they are unable to apply their knowledge and skills acquired through education. Poor roads and user fees in the health sector mean that many mothers give birth without medical assistance, despite having primary education. This inhibits the beneficial linkage between education and mother-and-child mortality. The new re-recognition of the crucial role of infrastructure by many international agencies will powerfully reinforce the argument about the conditioning context or the enabling environment.

The post-basic system contributes to the development of the transformative context by providing professionals in sectors such as health, education and law. For example, tertiary education trains medical professionals to strengthen the health system which enables mothers to use their education to ensure greater health for their families. But there are other ways that post-basic education and training contribute. Evidence from both East and West Africa implies that there may be a link between post-primary education and enterprise, with entrepreneurs contributing to job creation.

Education – and particularly post-basic education and training – may itself play a part in whether an environment is actually ready to absorb change or is open to new technology, or is critical of poor governance. Evidence from international comparisons implies that post-primary education has an important role to play in enabling economic growth and there may in fact be a threshold level of post-primary education needed in order to provide an environment in which economic

growth can occur through adoption of new technologies (World Bank, 2005b). But this is very different from assuming that the mere presence of a large pool of skilled workers somehow ushers in a knowledge economy. This is one of the problems with studies that seek to correlate post-basic education and economic growth, and especially with examples from Asia, without paying attention to the sheer complexity and variety of the Asian versus the African or Latin American social and cultural environments.

When it comes to considering the role of higher education in actually influencing the context in which human resource development is embedded, the most useful insights come from the Commission for Africa. In its analysis of capacity, it is evident that the skills that are missing are not those associated with primary education, or even TVET, but rather with higher education. Indeed, a powerful case is made that qualified professional staff are critical to the very delivery of the MDGs and other investments. After laying out the demand for such skills it is argued that the shortage of these can be traced to deficits in higher education, “which ought to be the breeding ground for the skilled individuals which the continent needs”. It is refreshing to see that higher education is not treated, as it so often is, in a separate chapter on education, but is dealt with in the same chapter as good governance, transparency and corruption, for the good reason that capacity strengthening is felt to be inseparable from good government.⁵³

The World Bank’s current higher education policy makes a similar argument for the way in which graduates can also influence the environment in which they operate. *Constructing Knowledge Societies: New Challenges for Tertiary Education* (World Bank, 2002) notes that

Tertiary education is necessary for the effective creation, dissemination, and application of knowledge and for building technical and professional capacity (World Bank, 2002: xix).

It argues the crucial importance of tertiary education, not just for developing professionals in education and health, but for creating a high level institutional capacity that is required for economic growth and poverty reduction.

6.4 Addressing equality

Whilst this work stresses the indirect role that post-basic education for some of the population has for developing a context in which all can benefit from education, it is also of vital importance to address the question of who receives post-basic education. The studies from Ghana, Kenya and Tanzania highlight the ubiquitous problem of inequitable access, with the richer end of society being vastly over-represented in post-primary student populations.

The fact that most of the poor are unable to gain access to post-basic education should not be a reason that, in order for funding to be pro-poor, only the primary/basic level should be targeted to achieve maximum impact. Restricting post-primary education, as was done historically in Tanzania, is likely to exacerbate inequalities, however much a system aims at merit-based allocation of places. Widening the post-basic education system increases access for all sections of society and can disproportionately favour the populations that are currently most under-served,

⁵³ See King (2005a) for a more detailed analysis of higher education in the Commission for Africa.

namely the poor. There must be new investments directed towards improving access of the poor to post-basic education. This would mean much more financial support to needy, but talented, basic education graduates so that they might participate in secondary and other post-basic levels of education. Simply providing scholarships or subsidies to cover the cost of fees may not be sufficient. The situation in Kenya, where many scholarships have gone in the past to the richer families, highlights the disabling influence that corruption can have in the education-poverty reduction relationship. Many of the rural poor in countries like Tanzania and Ghana do not live within commuting distance of post-basic education and training institutions. Subsidised accommodation is needed in order for them to access education but there is a tendency for state-funded boarding school places to be captured by the rich. State-funded boarding facilities need to be reserved for students from underserved areas if they are to address the inequalities of post-basic access.

The root of inequalities of access to post-basic education may lie in the inequalities of quality at the primary level. The low quality of basic education provision in rural areas disadvantages children from these areas in the selection into post-primary. Targeted intervention, such as incentive packages for teachers, may be needed in order to raise the quality of basic education in rural areas sufficiently to bring them up to the standards of urban schools.

State-funded skills training in both Ghana and Tanzania has tended to focus on high level, urban based skills. There needs to be more consideration of the involvement of further education colleges in lower level, less formal skills development programmes aimed at poorer communities.

6.5 Areas needing new empirical research

A recurrent theme in all the country studies was the complaint by policy makers and policy analysts about inadequate evidence on which to base policies and investment decisions. This implies that there are critical knowledge deficits that are inhibiting progress, i.e. that weaknesses and imbalances in education systems are not just down to political biases and inadequate funding. No consistent pattern is discernible across all the countries, but two common concerns are noteworthy:

- the need for more generic knowledge about pathways from education to poverty reduction at individual and macro levels, and the interplay of wider contextual factors with these pathways;
- the need for more detailed knowledge about links between specific kinds of educational provision (including informal vocational training and formal technical training) and specific kinds of livelihood opportunity, and, again, the impact on these links of changes in the wider economic environment.

The first concern, about pathways from education to poverty reduction, could be addressed through deeper reflections on merit-based pathways which could carry the most talented children from poor homes right through to the best universities. Do such systems exist and if so, do they target the poor in general or the most talented children? Do scholarships provide significant pathways out of poverty? Barriers to access to post-basic education and training other

than cost also need further investigation. For example, it would be useful to know in the cases of Tanzania and Ghana, how many students at secondary schools or training colleges are living away from home and how this influences their studies. Are hostels an efficient option for providing accommodation for students who live far from schools? In this connection also, it will be important to review what is now known about providing second chance pathways to serve disadvantaged young people (Adams, 2006; World Bank, 2006c).⁵⁴

Secondly, international and inter-state correlations between the population with post-primary education and a range of poverty indicators indicate a correlation, which, given the time lag used for the enrolment data, may be due to the education levels impacting on poverty reduction. But this type of quantitative data needs to be supported by in-depth qualitative analysis of pathways to poverty reduction from tracer studies that explore links between specific kinds of educational provision (formal and informal) and specific kinds of life outcome for different target groups, both poor and non-poor, rural and urban. Within this, perhaps the most important factor is to explore the transition from education and training to employment, for example through gathering biographies of successful, and not so successful, entrepreneurs. From this, enabling (and inhibiting) factors beyond education and training could be identified, such as access to resources, family connections, ability to move, ease with which graduates of technical and tertiary education can start their own businesses, etc. Greater knowledge of such trajectories would allow authorities to better provide for career guidance and support.

This study has sought to highlight knowledge gaps and analytical deficiencies in the area of post-basic education and poverty reduction. Whilst it has been well beyond the scope of this study to attempt to fill these gaps through new empirical data, the study has helped to develop a model for the more in-depth understanding of the education/training – poverty reduction relationship. This could be used to inform the design of further research projects. New research will need to begin to explore new ways of capturing the crucial role of the enabling or disabling environments in affecting how education and training are actually utilized. It will need to move from the ‘edu-centricity’ of much existing research towards work that will capture something of the complexity of the social, economic, cultural and political environments in which education and training investments are constantly being affected. In particular, our work could have implications for the new research which began in 2006 in the three new educational consortia supported by DFID.⁵⁵ Here is an example from the consortium concerned with improving educational outcomes for the poor; it reflects some of our concerns with the delivery context of post-basic education:

Circumstances have changed, particularly in Africa, where labour market conditions (with at best slowly growing formal employment and greatly increased outflows of primary leavers from quality-constrained school systems) suggest that economic returns at primary level have fallen relative to higher levels of education. Primary schooling alone may, then, no longer

⁵⁴ Van Adams’s 2006 background paper on “The role of skills development in the transition to work: a global review”, and the full World Development Report 2007, *Development and the Next Generation* (World Bank, 2006c) both provide relevant examples of pathways and trajectories for transition.

⁵⁵ Further information on each of the three consortia on educational access, quality and outcomes can be found on the following websites:

Access-CREATE-<http://www.create-rpc.org/>.

Quality-CEQUAL-<http://www.edqual.org/>.

Outcomes-RECOUP-<http://www.educ.cam.ac.uk/RECOUP/Index.html>.

deliver the full benefits previously associated with it. The intrinsic and human rights cases provide sufficient justification for the universalisation of primary schooling, but the full development benefits of its achievement may, in future, be gained only if secondary level expansion targets are increased, and/or if much greater attention is paid to improving the quality of primary schooling. The research should facilitate a more subtle interpretation of the MDG goals and targets, contributing to our understanding of the processes and consequences of educational development and of priorities for national and international policy (Colclough, 2006: 24).

New evidence is only valuable where commonsense is likely to be significantly wrong, and where there is a real possibility for policy and practice to be modified in the light of new evidence. Since most people agree on the intrinsic merits of primary education and on its generally beneficial outcomes, and since most governments are actively committed to the pursuit of EFA, there is little point in further studies that would produce still more generalised statistics on 'returns' to primary education. Substantial policy research has claimed strong linkages between primary education and poverty reduction, reduction in infant mortality, reduction in fertility, improvement in life expectancy, and so on. Research has also covered literacy and non-formal education. But there has been little corresponding research into the larger contexts and environments which can support or disable these linkages, and very rarely have the linkages between post-primary education and development been analysed in a similar fashion.

By far the greatest research challenge from our study relates to determining the impact on education of those factors beyond the school – the macro-economic environment, the cross-sectoral influences, the social, cultural and political context, and the physical infrastructure in rural and urban areas. These draw us out of the well-known world of evaluating schools, training centres and ministries of education, and into the wider arena of judging the impact of national and international development policies. Where there is a developmental state, education and training will find themselves within this wider enabling environment, but it is evident from examples in East and South Asia that developmental states can also increase inequalities between the rich and the poor. Thus the notion of a pro-poor developmental state may be one concept that emerges from our research, if the investments in basic and post-basic education are to be utilised to the full.

But in the absence of states with such an integrated vision of development, we still argue that holistic education and training systems, paying equal attention to basic and post-basic education and training, seem absolutely necessary to providing the potential capacities required for the emergence of nations committed to integrated and equitable development.

Bibliography

- Adams, A. V. (2006) 'The role of skills development in the transition to work: a global review', background paper for the World Development Report of 2007, Washington: World Bank
- Addae-Mensah, I. (2000) 'Education in Ghana: A tool for social mobility or social stratification', J. B. Danquah Memorial Lectures, Accra.
- Akoojee, S. and McGrath, S. (2005) *Post-Basic Education and Training and Poverty Reduction in South Africa: Progress to 2004 and Vision to 2014*, Post-basic Education and Training Working Paper No. 2, Edinburgh: Centre of African Studies, University of Edinburgh, (<http://www.cas.ed.ac.uk/research/projects.html>).
- Alila, P. and Pedersen, P. (Eds) (2001) *Negotiating Social Space. East African Micro Enterprises*, Trenton N.J.: Africa World Press.
- Altman, M. (2004a) 'Halving unemployment?', *Human Sciences Research Council Review* 2, 3, 7.
- Altman, M. (2004b) 'The state of employment', in Daniel, J., Southall, R. and Lutchmann, J. (Eds) *The State of the Nation, 2004-2005*, Cape Town: HSRC Press.
- Appleton, S. and Balihuta, A. (1996) 'Education and agricultural productivity: evidence from Uganda', *Journal of International Development*, 8 (3): 415-444.
- Appleton, S., Bigsten, A., and Manda, D. (1999) *Educational Expansion and Economic Decline: returns to education in Kenya, 1978-1995*. WPS/99-6, Oxford: Centre for the Study of African Economies.
- Appleton, S. Hoddinott, J. and Mackinnon, J. (1996) 'Education and health in sub-Saharan Africa', *Journal of International Development*, 8(3): 307-339.
- Appleton, S. and Teal, F. (1998) 'Human capital and economic development', background paper for the African Development Bank *African Development Report 1998*, Oxford: Oxford University Press.
- Arko, S. (2001) *A Comparative Study of Family Size Preference Among Women in Ghana and Kenya*. MA dissertation, Legon: Regional Institute for Population Studies, University of Ghana.
- Assad, R. (1993) 'Formal and informal institutions in the labour market with applications to the construction sector in Egypt', *World Development*, 21 (6): 925-39.
- Atchoarena, D. and Delluc, A. (2001) *Revisiting Technical and Vocational Education in Sub-Saharan Africa: An Update on Trends, Innovations, and Challenges*, IIEP/Prg.DA/01.320. Paris: International Institute for Educational Planning.

- Ayamdoo, C., Casely-Hayford, L., Palmer, R. and Thompson, N. (2006) *Aid and Donor Partnerships in the Ghana Education Sector: A Critical Review of the Literature and Progress*, Improving the Outcomes of Education for Pro-Poor Development, Working Paper of a DFID-funded research project, Accra: University of Edinburgh: Edinburgh/ Associates For Change.
- Barro, R., and Salai-i-Martin, X. (1995) *Economic Growth*, New York: McGraw-Hill.
- Barro, R. (1991) 'Economic growth in a cross section of countries', *Quarterly Journal of Economics*, 106 (2): 404-44.
- Barro, R. (1999) 'Human capital and growth in cross-country regressions', *Swedish Economic Policy Review*, 6 (2): 237-77.
- Barro, R. (2001) 'Human capital and growth', *American Economic Review*, 91 (Papers and Proceedings): 12-17.
- Benefo, K. and Schultz, T. (1994) 'Determinants of Fertility and Child Mortality in Cote d'Ivoire and Ghana', *LSMS Working Paper*, Number 103, Washington: World Bank.
- Benhabib, J. and Spiegel, M. (1994) 'The role of human capital in economic development: evidence from aggregate cross-country data', *Journal of Monetary Economics*, 34: 143-173.
- Bennell, P. (1996a) 'Rates of return to education: does the conventional pattern prevail in Sub-Saharan Africa?', *World Development*, 24(1): 183-199.
- Bennell, P. (1996b) 'General versus vocational secondary schooling in developing countries: a review of the rates of return evidence', *Journal of Development Studies*, 33(2): 230-247.
- Bennell, P. (1999) *Learning to Change: Skills Development among the Economically Vulnerable and Socially Excluded in Developing Countries*, Employment and Training Papers 43, Geneva: Employment and Training Department, ILO.
- Bennell, P., Bonde, A., Klim, M. and Mukyanuzi, F. (2002) *Evaluation of Danish Assistance to Vocational Education and Training: Tanzania Country Report*, Copenhagen: Danida.
- Bennell, P., Bendera, S. et al. (1999) *Vocational Education and Training in Tanzania and Zimbabwe in the Context of Economic Reform*, London: Department for International Development.
- Birdsall N., Ibrahim, A. and Gupta, G. (2004) *Task Force 3 Interim Report on Primary Education*, New York: UNDP.

- Birdsall, N., Levine, R. and Ibrahim, A. (2005) *Toward Universal Primary Education: investments, incentives and institutions*, New York: Task Force on Education and Gender Equality, UN Millennium Project 2005, UNDP.
- Bonuedi, D. (2003) *Proximate Determinants of Fertility in Obosomase in the Eastern Region of Ghana*, unpublished MA dissertation, Legon: Regional Institute for Population Studies, University of Ghana.
- Botchie, G. and Ahadzie, W. (2004) *Poverty Reduction Efforts in Ghana; the Skill Development Option*, Accra: Centre for Social Policy Studies (CSPS) / Institute of Statistical, Social and Economic Research (ISSER), University of Ghana.
- Brock-Utne, B. (2000) *Whose Education for All? The Recolonization of the African Mind*, New York; London: Falmer Press.
- Caillods, F. (2003) 'Do the Poverty Reduction Strategy Papers get to the root of EFA problems? Results of an IIEP/DFID review of 18 papers', *IIEP Newsletter XXI* (4) October-December 2003, Paris: IIEP-UNESCO.
- Canagarajah, S. and Pörtner, C. (2003) *Evolution of Poverty and Welfare in Ghana in the 1990s: Achievements and Challenges*, Africa Region Working Paper Series No. 61. Washington: World Bank.
- Canagarajah, S. and Thomas, T. (1997) *Ghana's Labour Market (1987-92)* Policy Research Working Paper 1752, Washington: World Bank.
- CARE International (n.d.) *CARE Rwanda Education Programming 2002-2006*, Kigali: CARE International.
- Chakravarti, A. (1972) 'Social profitability of training unskilled workers in the public sector in India', *Oxford Economic Papers*, 24 (1) (March): 113-23.
- Chen, M. (2001) 'Women in the informal sector: a global picture, the global movement', *SAIS Review*, 11 (1): 71-82.
- Cobbe, J. (1991) 'The political economy of education reform in Ghana', in Rothchild, D. (Ed) *Ghana: The Political Economy of Recovery*, Boulder: Lynne Rienner Publishers.
- Colclough, C. (2006) 'Research Consortium on Educational Outcomes and Poverty (RECOUP)', *Norrag News* 37:24. Available at www.norrag.org.
- Cochrane, S. (1979) *Fertility and Education. What Do We Really Know?* Washington: World Bank.

- Commission for Africa (2005) *Our Common Interest: Report of the Commission for Africa*, London: DFID.
- Congress of South African Trade Unions (COSATU), South African Non-Governmental Organisation Coalition and the South African Council of Churches (2004) *2005-2006 People's Budget*, Johannesburg: Naledi.
- Coulombe, H. and McKay, A. (2003) 'Selective poverty reduction in a slow growth environment: Ghana in the 1990s', paper prepared for the World Bank, Human Development Network, presented at ISSER-Cornell International Conference on *Ghana at the Half Century*, Accra, July 2004.
- Court, J. and Maxwell, S. (Eds) *Policy Entrepreneurship for Poverty Reduction: Bridging Research and Policy in International Development*, Rugby: Practical Action.
- Crouch, L. and Mabogoane, T. (2001) 'No magic bullets, just tracer bullets: the role of learning resources, social advantage, and education management in improving the performance of South African schools', *Social Dynamics*, 27, 1: 60-78.
- Danso-Manu, K. (2004) *Education, Poverty and Public expenditure in Ghana, 2003*. Accra: Ghana Statistical Service.
- Dar, A. (2000) 'Tanzania country study', in F. Fluitman, I. S. Gill and A. Dar (Eds) *Vocational Education and Training Reform: Matching Skills to Markets and Budgets*, Washington: World Bank.
- Davidson, E. (2005) *Understanding and Improving Quality in Tanzanian Primary Schooling*, Unpublished PhD thesis, Norwich: School of Development Studies, University of East Anglia.
- DFID (2000a) *Rwanda: Budget and Education Sector Support 2000-2003*, London: DFID.
- DFID (2000b) *Eliminating World Poverty: Making Globalisation Work for the Poor*, White Paper on International Development, London: DFID.
- DFID (2004a) *Project Concept Note. Support to Education Strategic Plan (SESP)*, Accra: DFID Ghana.
- DFID (2004b) *Support to Education Strategic Plan (SESP) Programme Submission*, third draft, dated 30th November 2004, Accra: DFID Ghana.
- DFID (2004c) *Support to Education Strategic Plan (SESP) Annexes to the Programme Submission*, third draft, dated 30th November 2004, Accra: DFID Ghana.

- DFID (2005) *DFID Review of Health and Education Progress (RHEP), Country level report on the education sector in Ghana*, mimeo, Accra: DFID Ghana.
- DFID (2006) *The Importance of Secondary, Vocational and Higher Education to Development. Briefing*. A DFID Practice Paper, July 2006, London: DFID.
- Djankov, S., McLiesh, C. and Ramalho, R. (2006) 'Regulation and Growth', *Economics Letters*, Washington: World Bank
(http://www.doingbusiness.org/documents/growthpaper_03_17.pdf).
- Dore, R. (1976) *The Diploma Disease: Education, Qualification and Development*, London: Allen and Unwin.
- Educational Consultants India Limited (Ed.CIL)(2001) *Study of Technical and Vocational Training Needs for Rwanda's Reconstruction and Role of KIST*. Project supported by the African Development Bank and Mineduc. Final Report, Kigali: Ed.CIL, August 2001.
- Ellerman, D. (2005) 'Investing in development? Here we go again!', *NORRAG NEWS 36*, Centre of African Studies, Edinburgh University: Edinburgh (www.norrag.org).
- Evans, A. and Ngalewa, E. (2003) 'Tanzania', in D. Booth (Ed) *Fighting Poverty in Africa: Are PRSPs Making a Difference?* London: ODI: 247- 274.
- Fluitman, F. (1994) 'Traditional Apprenticeship', in Husén, T. and Postlethwaite, T. (Eds.) *International Encyclopedia of Education (2nd Ed)*, Oxford: Pergamon.
- Foster, A. and Rosenzweig, M. (1996) 'Technical Change and Human Capital Returns and Investments: Evidence from the Green Revolution', *American Economic Review*, 86(4): 931-953.
- Frazer, G. (2006) 'Learning the master's trade: apprenticeship and human capital in Ghana', *Journal of Development Economics*, forthcoming.
- Fryer, D. and Vencatachellum, D. (2002) 'Returns to education in South Africa: evidence from Machibisa Township', downloaded on 19/04/05 from www.commerce.uct.ac.za/.../PDF%20Files%20-%20Conference%202002%20Papers/Fryer;%20Vencatachellum.pdf
- Fuller, W. (1976) 'More evidence supporting the demise of pre-employment Vocational Trade Training: a case study of a factory in India', *Comparative Education Review*, 20 (1) (February): 31-42.
- Galabawa, C., Senkoro, F et al., (Eds) (2000) *The Quality of Education in Tanzania*. Dar es Salaam: University of Dar es Salaam Faculty of Education.
- Gelb, S. (2003) *Inequality in South Africa*, Johannesburg: The Edge Institute.

- Glewwe, P. (1991) *Schooling, Skills and the Returns to Government Investment in Education. An Exploration using data from Ghana*, Living Standards Measurement Study, Working Paper No.76. Washington: World Bank.
- Government of Ghana (GoG) (2003a) *Ghana Poverty Reduction Strategy Paper (GPRS) An Agenda for Growth and Prosperity 2003-2005*. IMF Country Report No. 03/56.
- GoG (2003b) *Education Strategic Plan 2003 to 2015. Volume 1, Policies, Targets and Strategies*, Accra: Ministry of Education.
- GoG (2004) *White Paper on The Report of The Education Reform Review Committee*. Accra: GoG
- GoG/MoE (1996) *Free Compulsory Universal Basic Education (FCUBE)*, Accra: Ministry of Education (MoE).
- GoG/MoEYS (2002) *Education Sector Review*, Accra: Ministry of Education, Youth and Sports (MoEYS).
- GoG/MoEYS (2004a) *Preliminary Education Sector Performance Report 2004*, Accra: MoEYS.
- GoG/MoEYS (2004b) *Draft TVET Policy Framework For Ghana*. Developed for Ministry of Education Youth and Sports, January 2004, Accra: MoEYS.
- GoG/MoEYS (2005) *Preliminary Education Sector Performance Report July 2005*, Accra: MoEYS.
- Government of Kenya (GoK) (1986) *Sessional Paper No. 1 of 1986 on Economic Management for Renewed Growth* [shorter popular version], Nairobi: Government Printer.
- GoK (1996) *Sessional Paper no. 2 of 1996 on Industrial Transformation to the Year 2020*, Nairobi: Government Printer.
- GoK (1998) *Master Plan on Education and Training 1997-2010*, Nairobi: Jomo Kenyatta Foundation.
- GoK (1999) *National Poverty Eradication Plan, 1999-2015*, Nairobi: Government Printer.
- GoK (2003a) *Economic Recovery Strategy for Wealth and Employment Creation 2003-2007*, Nairobi: Government Printer.
- GoK (2003b) *Education Sector Strategic Plan, 2003-2007. Draft*, Nairobi: Ministry of Education, Science and Technology.
- GoK (2003c) *Report of the Sector Review and Development*, Nairobi: Ministry of Education, Science and Technology.

- GoK (2003d) *Rapid Appraisal on the Status of Technical and Vocational Education and Training (TVET) in Kenya*, Nairobi: MOEST/GTZ.
- GoK (2005) *Sessional Paper No. 1 of 2005 on a Policy Framework for Education, Training and Research: Meeting the challenges of education, training and research in the 21st century*, (January 2005), Nairobi: Government Printer.
- GoK/Central Bureau of Statistics (2005) *Geographic Dimensions of Well-being in Kenya: Who and Where are the Poor? A constituency level profile, Vol.II*, Nairobi: Ministry of Planning and National Development.
- Government of Rwanda (GoR) (2002a) *The Government of Rwanda Poverty Reduction Strategy Paper*, Kigali: GoR.
- GoR (2002b) *2020 Vision, Draft 2* (July 2002) Kigali: Republic of Rwanda, Ministry of Finance and Economic Planning.
- GoR/ Minecofin (2002) *Integrated Household Living Conditions Survey (2000-2001) – Final Report*, Kigali: Ministry of Finance and Economic Planning.
- GoR/ Minecofin (2004a) *Enquête sur les Indicateurs de Base du Bien-être QUIBB – 2003. Rapport d'analyse des resultants*, [Core Welfare Indicators Survey, CWIQ – 2003. Analysis of Results], Kigali: Ministry of Finance and Economic Planning.
- GoR/ Minecofin (2004b) *Registry of External Aid to Rwanda*, Kigali: CEPEX.
- GoR/Mineduc (1998) *Study of the Education Sector in Rwanda*, Kigali: Ministry of Education.
- GoR/ Mineduc (2003a) *Education Sector Policy*, Kigali: Ministry of Education, Science, Technology and Scientific Research.
- GoR/ Mineduc (2003b) *Education Sector Strategic Plan 2003-2008*, Kigali: Ministry of Education.
- GoR/ Mineduc (2004a) *Enseignement secondaire. Année scolaire 2003-2004. Recensement statistique*, [Secondary Teaching. School Year 2003-2004. Statistical Census], Kigali: Ministry of Education.
- GoR/ Mineduc (2004b) *Enseignement supérieur. Année Académique 2003-2004. Recensement Statistique*, [Tertiary Teaching. Academic Year 2003-2004. Statistical Census], Kigali: Ministry of Education.
- GoR/ Mineduc (2005) *Education Sector Strategic Plan 2005-2010*. April 2005 (DRAFT), Kigali: Ministry of Education.

- GoR/ Ministry of Justice (2004) *Justice Sector Strategy*, November 2004, Kigali: Ministry of Justice.
- Government of the Republic of South Africa (GoRSA) (1996) *South African Schools Act*, Pretoria: Government Printer.
- GoRSA/ Department of Education (2003a) *Report to the Minister: A Review of the Financing, Resourcing and Costs of Education in Public Schools*, Pretoria: DoE.
- GoRSA/ Department of Education (2003b) *Education Statistics in South Africa at a Glance (2001)*, Pretoria: DoE.
- GoRSA (2004) *Programme of Action*, Pretoria: Government Printer.
- GoRSA (2005) *The Accelerated and Shared Growth Initiative for South Africa: A Summary*, Pretoria: Government Printer.
- Government of the United Republic of Tanzania (GoURT) (1998) *National Poverty Eradication Strategy*. Dar es Salaam: GoURT.
- GoURT(1999) *Development Vision 2025*. Downloaded on 15.04.04 from <http://www.tanzania.go.tz/vision.htm>
- GoURT (2000a) *Interim Poverty Reduction Strategy Paper*, Dar es Salaam: GoURT (March 2000).
- GoURT (2000b) *Poverty Reduction Strategy Paper*, Dar es Salaam, GoURT (October 2000).
- GoURT (2004) *Poverty Reduction Strategy II: first draft for second round consultations*, Dar es Salaam: Vice President's Office.
- GoURT/ MoEC (2003) *Basic Statistics in Education 1999-2003*, Dar es Salaam: Ministry of Education and Culture.
- GoURT/ MoEC (2004) *Basic Statistics in Education 2004: Regional Data*, Dar es Salaam: Ministry of Education and Culture.
- GoURT/ MoF (2003) *Budget Execution Report: Budget for fiscal year 2002/2003*, Dar es Salaam: Ministry of Finance.
- GoURT/ National Bureau of Statistics Tanzania (2004) *Integrated Labour Force Survey*. Downloaded on 07/12/04 from <http://www.nbs.go.tz/labourforce/>
- GoURT/Research and Analysis Working Group on Poverty Monitoring (2004) *Tanzania's Participatory Poverty Assessment 2002/2003*. Downloaded on 04/11/04 from http://www.povertymonitoring.go.tz/downloads/resourceforprsreview/tzppabody_text.pdf

- Government of India (2001) *National Human Development Report 2001*, New Delhi: Planning Commission.
- Grierson, J. (1997) *Where There Is No Job: Vocational Training for Self-employment in Developing Countries*. St Gallen: Swiss Centre for Development Cooperation in Technology and Management, (SKAT), Swiss Agency for Development and Cooperation (SDC) and Centre of African Studies, University of Edinburgh (co-published).
- GSS (Ghana Statistical Service) (2000) *Poverty Trends in Ghana in the 1990s*. Accra: Ghana Statistical Service.
- Haan, H. and Serrière, N. (2002) *Training for Work in the Informal Sector: Fresh Evidence from Western and Central Africa*, International Training Centre of the ILO occasional Paper, Turin: ILO.
- Haddad, W. and Conly, S. (1987) *Diversified Secondary Curriculum Projects: A Review of World Bank Experience, 1963-1979*, EDT Discussion Paper No. 57, Washington: World Bank.
- Hart, K. (1973) 'Informal income opportunities and urban employment in Ghana', *Journal of Modern African Studies*, 2 (1): 61-89.
- Hayman, R. (2005) *The Contribution of Post-Basic Education and Training (PBET) to Poverty Reduction in Rwanda: balancing short-term goals and long-term visions in the face of capacity constraints*. Post-Basic Education and Training Working Paper Series No 3, Edinburgh: Centre of African Studies, University of Edinburgh (<http://www.cas.ed.ac.uk/research/projects.html>).
- Hayman, R. (2006) *The Complexity of Aid: Government strategies, donor agencies and the coordination of development assistance in Rwanda 1994-2004*, unpublished PhD thesis, Edinburgh: University of Edinburgh.
- Hayman, R. (2007) 'Are the MDGs enough? Donor perspectives and recipient visions of education and poverty reduction in Rwanda', *International Journal of Educational Development* 27(4). *Special Issue: Beyond Basic Education and towards an Expanded Vision of Education for Poverty Reduction and Growth?*
- Hirsch, A. (2004) 'South Africa's growth path in the decade ahead', paper presented at a SARN seminar, Pretoria: HSRC.
- Holtom, D. (2003) *Coercion and Consent: the World Bank in Tanzania 1970-2001*, unpublished PhD thesis, Swansea: Centre for Development Studies, University of Wales.
- ILO (2002) *Learning and Training for Work in the Knowledge Society* 91st session of the International Labour Conference, Geneva: ILO.

- ILO (2003) *Working Out of Poverty*, International Labour Conference 91st Session, Geneva: ILO.
- Jhabvala, R. and Subrahmanya, R. (2000) *The Unorganised Sector: Work Security and Social Protection*, New Delhi: Sage Publications.
- Jones, P. (1992) *World Bank Financing of Education: Lending, Learning and Development*, London: Routledge.
- Kayiranga Gakuba, Théogène (2004) *Analyse des Besoins du Marché de l'Emploi des Entreprises au Rwanda* [Analysis of the Employment Market Needs of Enterprises in Rwanda], Kigali: GTZ/Mineduc.
- Kifle, H. (1998) Capacity building in Africa in L. Wohlgemuth, J. Carlsson and H. Kifle (Eds) *Institution Building and Leadership in Africa*, Uppsala: Nordic Institute of African Studies.
- King, K. (1991) *Aid and Education in the Developing World*, Harlow: Longman.
- King, K. (2003) 'The international steering of education systems: the case of the World Bank in the fields of work, education and occupation', in Oelkers, J. (Ed.) *Futures of Education II*, Bern: Peter Long.
- King, K. (2005a) 'The Commission for Africa: a changing landscape for higher education and capacity development in Africa', in *A Changing Landscape: Making Support to Higher Education and Research in Developing Countries more Effective*, The Hague: NUFFIC.
- King, K. (2005b) 'Education, skills and work on the world's development agenda of 2005', in M. Beveridge, K. King, R. Palmer, and R. Wedgwood (Eds) *Reintegrating education, skills and work in Africa. Towards informal or knowledge economies? Towards autonomy or dependency in development?* Edinburgh: Centre of African Studies, University of Edinburgh.
- King, K. (2006) *Post-Basic Education and Training for Growth and Poverty Reduction. Towards a History of Policy in Kenya 1963-2005*. Post-Basic Education and Training Working Paper Series No 5, Edinburgh: Centre of African Studies, University of Edinburgh (<http://www.cas.ed.ac.uk/research/projects.html>).
- King, K. and Palmer, R. (2006a) 'Skills, capacities and knowledge in the Least Developed Countries: new challenges for development cooperation,' background paper produced for the 2006 UNCTAD Least Developed Countries Report, *Mobilizing and Developing Productive Capacity for Poverty Reduction*, Edinburgh: Centre of African Studies, University of Edinburgh.
- King, K. and Palmer, R. (2006b) Skills Development and Poverty Reduction: the State of the Art, Post-basic education and Training Working Paper No. 7, Edinburgh: Centre of African Studies, University of Edinburgh. (<http://www.cas.ed.ac.uk/research/projects.html>).

- King, K. and Palmer, R. (2006c) *Education, Training and their Enabling Environments: A Review of Research and Policy*, Post-basic education and training working paper no. 8, Edinburgh: Centre of African Studies, University of Edinburgh (<http://www.cas.ed.ac.uk/research/projects.html>).
- King, K., Palmer, R. and Hayman, R. (2005) 'Bridging research and policy on education, training and their enabling environments', *Journal of International Development*, 17(6): 803-817.
- Kingdon, G. 1998. 'Does the labour market explain lower female schooling in India?', *Journal of Development Studies*, 35(1): 39-65.
- Kingdon, G., Sandefur, J. and Teal, F. (2005) *Patterns of Labour Demand. Africa Region Employment Issues – Regional Stocktaking Review*, Oxford: Centre for the Study of African Economies, Department of Economics, University of Oxford.
- Knight, J. and Sabot, R. (1990) *Education, Productivity and Inequality: the East African natural experiment*, Washington: IRBD/ World Bank.
- Koff, D. (1967) 'Education and employment: perspectives of Kenya primary pupils', in J. R. Sheffield (Ed) *Education, Employment and Rural Development. Report of the Kericho (Kenya) Conference 25th September to 1st October 1966*, Nairobi: East African Publishing House.
- Kraak, A. (2003a) 'HRD and "joined up" policy', in Human Sciences Research Council (Ed) *Human Resources Development Review 2003*, Cape Town: HSRC Press.
- Kraak, A. (2003b) 'HRD and the skills crisis', in Human Sciences Research Council (Ed) *Human Resources Development Review 2003*, Cape Town: HSRC Press.
- Kuleana (1999) *The State of Education in Tanzania: Crisis and Opportunity*, Mwanza: Kuleana.
- Kunfaa, E. and Dogbe, T. (2002) 'Empty Pockets', in Narayan, D. and Petesch, P. (Ed) (2002) *Voices of the Poor From Many Lands*, Washington: World Bank.
- Lavy V. (1996) 'School supply constraints and children's educational outcomes in rural Ghana', *Journal of Development Economics*, 51(2): 291-314.
- Leshabari, M. and Masesa, Z. (2000) 'The impact of deteriorating quality of education in schools on the training of medical doctors in Tanzania', in C. J. Galabawa, F. E. M. K. Senkoro and A. F. Lwaitama (Eds) *The Quality of Education in Tanzania*, Dar es Salaam: University of Dar es Salaam, Faculty of Education: 135-144.
- Levine, R. and Renelt, D. (1992) 'A sensitivity analysis of cross country regressions', *American Economic Review*, 82 (4): 942-63.

- Lewin, K. (2003) 'Planning post-primary education: taking targets to task', paper presented at the *Oxford International Conference on Educational Development*, Oxford, September 2003. Also published in *NORRAG NEWS*, No. 33 (January 2004) (www.norrag.org).
- Lewin, K. (2005) 'Seeking secondary schooling in Africa: fallacies, foresight and freedom', in M. Beveridge, K. King, R. Palmer and R. Wedgwood (Eds) *Reintegrating education, skills and work in Africa. Towards Informal or Knowledge Economies? Towards Autonomy or Dependency in Development?* Edinburgh: Centre of African Studies, University of Edinburgh: 137-160.
- Limbu, F. (1999) 'Agricultural technology, economic viability and poverty alleviation in Tanzania', *The Structural Transformation Policy Workshop*: Nairobi, June 1999.
- Lockheed, M., Jamison, D. and Lau, L. (1980) 'Farmer education and farm efficiency: a survey', *Economic Development and Cultural Change*, 29, 1: 37-76, reprinted as World Bank Report Series No. 166, Washington: World Bank.
- Lustig, N., Arias, O. and Rigolini, J. (2002) *Poverty Reduction and Economic Growth: A Two-way Causality*, Sustainable Development Department Technical Papers Series, Washington: Inter-American Development Bank.
- Lwaitama, A., Mtalio, E. and Mboma, L. (Eds) (2001) *The Multi-dimensional Crisis of Education in Tanzania: Debate and Action*, Dar es Salaam: University of Dar es Salaam Convocation.
- Maarifa ni Ufunguo (2002) *Financing Education in Kilimanjaro: The Story Continues... (A follow up to the 2000 Study: Cost Sharing: A case Study of Education in Kilimanjaro)*, Arusha: Maarifaa ni Ufunguo.
- Makuza, B. (2003) *Keynote speech by the Right Honourable Prime Minister Bernard Makuza on Government Programme before the Parliament*, Kigali.
- Malekela, G. (1994) 'Parents' attitudes and strategies towards education in Tanzania: are they changing over time?', in T. Takala (Ed.) *Quality of Education in the Context of Culture in Developing Countries*, Tampere: University of Tampere, Dept. of Education.
- Massesa, J. (2004) *Children and Poverty: What Children & Young People are Saying about Poverty in Tanzania: An Overview Report on their issues in Tanzania*, Dar es Salaam: Tanzania Movement for and with Children (TMC).
- May, J. (Ed.) (1998) *Poverty and Inequality in South Africa*, Durban: Praxis.
- Mbelle, A. and Katabaro, J. (2003) *School Enrolment, Performance and Access to Education in Tanzania*, Dar es Salaam: REPOA/ Mkuki na Nyota.

- McCord, A. and Borhat, H. (2003) 'Employment and labour market trends in South Africa', in Human Sciences Research Council (Ed.) *Human Resources Development Review 2003*, Cape Town: HSRC Press.
- McGrath, S. (2003) 'Sectoral insights into the scarce skills debate', Human Sciences Research Council Review 1, 2, 8.
- McGrath, S. and King, K. (1999) 'Enterprise in Africa: new contexts; renewed challenges', in K. King and S. McGrath (Eds) *Enterprise in Africa*, London: Intermediate Technology.
- McNab, C. (2003) *Post-basic Education in Partner Countries*, New Education Division Documents No. 13, Stockholm: Sida.
- Ministry of Foreign Affairs (MOFA), Japan (2006) *Supporting the joy of learning: Japan's support for education*, Tokyo: MOFA.
- Moll, P. (1998) 'Primary schooling, cognitive skills and wages in South Africa', *Economica*, 65: 263-284.
- Morton, P. (2004) *Job Quality in Micro and Small Enterprises in Ghana: Field Research Results*, SEED Working Paper No. 68, Series on Job Quality in Micro and Small Enterprise Development, Geneva: ILO.
- Mukyanuzi, F. (2003) *Where has all the Education gone in Tanzania? Employment outcomes among secondary school and university leavers*, Dar es Salaam: DFID Tanzania.
- Mullei, A. (Ed) (2001) *The Link between Corruption and Poverty: Lessons from Kenya Case Studies*, Nairobi: African Centre for Economic Growth.
- Mungai, J. (2005) *Hotuba ya Waziri wa Elimu na Utamaduni kuhusu Makadirio ya Matumizi ya Fedha kwa Mwaka 2005/2006* [Speech by the Minister for Education and Culture about the estimates for spending for the year 2005/06], Dodoma: United Republic of Tanzania, July 2005.
- Narayan, D. (1997) *Voices of the Poor – Poverty and Social Capital in Tanzania*, Washington: World Bank.
- Narayan, D., Chambers, R., Shah, M. and Petesch, P. (2000) *Voices of the Poor: Crying Out for Change*, New York: Oxford University Press for the World Bank.
- Narayan, D. and Nyamwaya, D. (1996) *Learning from the Poor: A Participatory Poverty Assessment in Kenya*, Environment Department Paper No 034, Washington: World Bank.
- Narayan, D., Patel, R., Schafft, K., Rademacher, A. and Koch-Schulte, S. (2000) *Voices of the Poor: Can Anyone Hear Us?* New York: Oxford University Press for the World Bank.

- Narayan, D. and Petesch, P. (2002) *Voices of the Poor: From Many Lands*, New York: Oxford University Press for the World Bank.
- Nelson, R. and Phelps, E. (1966) 'Investment in humans, technological diffusion, and economic growth', *American Economic Review Papers and Proceedings*, 61: 69-75.
- NORRAG NEWS (2006) No. 37, *Special Issue on Educating Out of Poverty: A Status Report*, (www.norrag.org).
- Nyerere, J. (1967) *Education for Self Reliance*, Arusha: United Republic of Tanzania.
- Omari, I. (1999) 'The relationship between education and income in poverty alleviation strategies', in Justinian Galabawa (Ed.), *Basic Education Renewal Research Initiative for Poverty Alleviation*, Dar es Salaam: Faculty of Education, University of Dar es Salaam: 66-102.
- O'Riordan, J., Swai, F. and Rugumyamheto, A. (1997) *Educational Background, Training and their Influence on Female-Operated Informal Sector Enterprises*, Dar es Salaam: REPOA/ Mkuki na Nyota.
- Osmani, S. (2003) *Exploring the Employment Nexus: Topics in Employment and Poverty*, A report prepared for the Task Force on the Joint ILO-UNDP Programme on Employment and Poverty, Geneva and New York: ILO-UNDP.
- Palmer, R. (2004a) *The Financing of Rural Micro-enterprises: Evidence from Nkawie-Kuma, Atwima District, Ghana*, Occasional Paper No. 96, Edinburgh: Centre of African Studies, University of Edinburgh.
- Palmer, R. (2004b) *The Informal Economy in Sub-Saharan Africa: Unresolved Issues Of Concept, Character And Measurement*, Occasional Paper No. 98, Edinburgh: Centre of African Studies, University of Edinburgh.
- Palmer, R. (2005) *Beyond the Basics: Post-basic Education and Training and Poverty Reduction in Ghana*, Post-Basic Education and Training Working Paper Series No 4, Edinburgh: Centre of African Studies, University of Edinburgh (<http://www.cas.ed.ac.uk/research/projects.html>).
- Palmer, R. (2006a) 'Beyond the basics: balancing education and training systems in developing countries', *Journal for Education in International Development*, 2:1 (<http://www.equip123.net/IEID/articles/2/BeyondBasics.pdf>).
- Palmer, R. (2006b) *Education, Training and Labour Market Outcomes in Ghana: A Review of the Evidence. Improving the Outcomes of Education for Pro-Poor Development*, Working Paper for DFID research project, Edinburgh: University of Edinburgh.

- Palmer, R. (2007a) *Skills Development, the Enabling Environment and Informal Micro-Enterprise in Ghana*, unpublished PhD thesis, Edinburgh: Centre of African Studies, University of Edinburgh.
- Palmer, R. (2007b) Skills for Work?: from skills development to decent livelihoods in Ghana's rural informal economy', *International Journal of Educational Development* 27(4), *Special Issue: Beyond Basic Education and towards an Expanded Vision of Education for Poverty Reduction and Growth?*
- Pang, T., Lansang, M. and Haines, A. (2002) 'Brain drain and health professionals', *British Medical Journal*, 324(7336): 499–500.
- Pernia, E. (2002) *Is Growth Good Enough for the Poor?* Economics and Research Department (ERD) Policy Brief Series, Number 1, Manila: Asian Development Bank.
- Pritchett, L. (1996) *Where Has All the Education Gone?* Washington: World Bank.
- Psacharopoulos, G. (1973) *Returns to Education*, Amsterdam: Elsevier Scientific Publishing Company.
- Psacharopoulos, G. (1980) 'Returns to education: an updated international comparison', in T. King (Ed.) *Education and Income*, World Bank Staff Working Paper No.402, Washington: World Bank.
- Psacharopoulos, G. (1985) 'Returns to education: a further international update and implications', *Journal of Human Resources*, 20(2):583–604.
- Psacharopoulos, G. (1988) 'Education and development: a review', *The World Bank Research Observer*, 3(1):99-116.
- Psacharopoulos, G. (1994) 'Returns to education: a global update', *World Development* 22, 9, 1325-1343.
- Psacharopoulos, G. and Patrinos, H. (2002) 'Returns to investment in education: a further update', *World Bank Policy Research Working Paper* 2881, Washington: World Bank.
- Rajabu, A. (2000) 'Teachers' education in Tanzania', in C. J. Galabawa, F. E. M. K. Senkoro and A. F. Lwaitama (Eds) *The Quality of Education in Tanzania* Dar es Salaam: University of Dar es Salaam, Faculty of Education: 251- 265.
- Rajani, R. (2001) *Situational Analysis of Children in Tanzania*. Dar es Salaam: UNICEF.
- Reiss, N. (2003) *The Contribution of Primary Education to Rural Livelihoods in Rwanda*, unpublished MA dissertation, Norwich: The School of Development Studies, University of East Anglia.

- Rosenzweig, M. (1995) 'Why are there returns to schooling?' *American Economic Review, Papers and Proceedings* (May): 135-158
- Roe, E. (1991) 'Development narratives, or making the best of blueprint development', *World Development* 19(4): 287-300.
- Samoff, J. and Carrol, B. (2003) *From Manpower Planning to the Knowledge Era: World Bank Policies on Higher Education in Africa*, Paris: UNESCO Forum on Higher Education and Knowledge.
- Schultz, T. (1975) 'The value of the ability to deal with disequilibria', *Journal of Economic Literature*, 13: 872-876.
- Shaffer, P. (1998) *Poverty Reduction Strategies: A Review*, New York: UN.
- Sida (2000) *Sida's Policy for Capacity Development*, Stockholm: Sida.
- Teal, F. (2001) *Education, Incomes, Poverty and Inequality in Ghana in the 1990s*, CSAE WPS/2001-21, Oxford: Centre for the Study of African Economies.
- Tetty, L. (2003) *Socio-Economic Determinants of Infant and Child Mortality in Ghana and Nigeria*, unpublished MA dissertation, Legon: Regional Institute for Population Studies, University of Ghana.
- Thakur, C. (1979) 'Skill generation and labour market in a developing economy', *Economic Development and Cultural Change*, 27 (2) (January): 343-56.
- Thin, N. (1999) *Evaluation of Poverty Reduction Literature Reviews and Annotated Bibliography*, Edinburgh: University of Edinburgh for OECD Development Assistance Committee, Working Group on Evaluation.
- Tikly, L., Lowe, J., Crossley, M., Dachi, H., Garrett, R. and B. Mukabaranga (2003) *Globalisation and Skills for Development in Rwanda and Tanzania*, London: DFID.
- Tilak, J. (1988) 'Economics of vocationalization: a review of evidence', *Canadian and International Education*, 17 (1): 45-62.
- Tilak, J. (2005) *Post-Elementary Education, Poverty and Development in India*, Working Paper Series No 6, Edinburgh: Centre of African Studies, University of Edinburgh (<http://www.cas.ed.ac.uk/research/projects.html>).
- Tilak, J. (2006) *The Role of Post-Basic Education in Poverty and Development*, Working Paper Series No 7, Edinburgh: Centre of African Studies, University of Edinburgh (<http://www.cas.ed.ac.uk/research/projects.html>).

UNDP (2001) *International/Millennium Declaration Goals, Tanzania Progress Report (Overview)*,
Downloaded on 15/04/04 from <http://www.undp.org/mdg/tanzania.pdf>

UNDP (2002a) *Capacity for Development: New Solutions to Old Problems*, New York: UNDP.

UNDP (2002b) *Developing Capacity Through Technical Co-operation*, New York: UNDP.

UNDP (2003) *Ownership, Leadership and Transformation: Can We Do Better for Capacity Development?* New York: UNDP.

UNDP (2005a) *Human Development Report 2005: International co-operation at a crossroads: Aid, trade and security in an unequal world*, New York: UNDP.

UNDP (2005b) *Human Development Reports: country tables*, downloaded on 01/12/04 from http://hdr.undp.org/statistics/data/index_countries.cfm

UNDP/ISSER (1999) *Ghana Human Development Report 1998*, Accra: ISSER/UNDP, Worldwide Press.

UNDP/ISSER (2001) *Ghana Human Development Report 2000*, Accra: ISSER/UNDP, Worldwide Press.

UNESCO (2002) *Education for All: Is the World on Track? Education for All Global Monitoring Report 2002*, Paris: UNESCO.

UNESCO (2003) *Gender and Education for All: The Leap to Equality. Education for All Global Monitoring Report 2003/4*, Paris: UNESCO.

UNESCO (2004) *Education for All: The Quality Imperative. Education for all Global Monitoring Report 2005*, Paris: UNESCO.

UNESCO (2005) *Literacy for Life. Education for All Global Monitoring Report 2006*, Paris: UNESCO.

UNESCO (2006) *Education For All Global Monitoring Report glossary*, downloaded on 8/5/06 from http://portal.unesco.org/education/en/ev.php-URL_ID=43385&URL_DO=DO_TOPIC&URL_SECTION=201.html

UNESCO Institute for Statistics (2001) *Education Counts: Key Statistics of National Education Systems*, (CDRom), Montreal: UIS.

United Nations Millennium Project (2005a) *Investing in Development. A practical plan to achieve the Millennium Development Goals*. New York: UNDP/London: Earthscan.

- United Nations Millennium Project (2005b) *Education. Towards Universal Primary Education: Investments, Incentives and Institutions*, London: Earthscan.
- Van der Gaag, J. and Vijverberg, W. (1989) 'A switching regression model of wage determinants in the public and private sectors of a developing country', *Review of Economics and Statistics*, 70: 244-252.
- Vasudeva-Dutta, P. (2004) *The Structure of Wages in India, 1983-1999*, Sussex: University of Sussex, Dept of Economics (mimeo).
- Vavrus, F. and Larsen, U. (2003) 'Girls' education and fertility transitions: an analysis of recent trends in Tanzania and Uganda', *Economic Development and Cultural Change*, 51(4): 945-975.
- Wak, G. (2002) *Determinants of Infant Mortality in the Kassena-Nankana District, Ghana*, unpublished MA dissertation, Legon: Regional Institute for Population Studies, University of Ghana.
- Weale, M. (1992) *Education, Externalities, Fertility, and Economic Growth*, Policy Research Working Papers, Education and Employment, WPS 1039, Washington: World Bank.
- Wedgwood, R. (2005) *Post-Basic Education and Poverty in Tanzania, Post-Basic Education and Training* Working Paper Series No 1, Edinburgh: Centre of African Studies, University of Edinburgh (<http://www.cas.ed.ac.uk/research/projects.html>).
- Welch, F. (1970) 'Education in production', *The Journal of Political Economy*, 78(1): 35-59
- Welch, F. (1978) 'The role of investments in human capital in agriculture', in T.W. Schultz, (Ed.) *Distortions of Agricultural Incentives*, Bloomington: London: Indiana University Press.
- Whiteford, A. and van Seventer, D. (2000) 'South Africa's changing income distribution in the 1990s', *Journal of Studies in Economics and Econometrics* 24(3) 7-30.
- Whyte, B. (2000) *Proximate Determinants of Fertility Change in Ghana, 1993-1998*, unpublished MA dissertation, Legon: Regional Institute for Population Studies, University of Ghana.
- Williams, P. (2005) 'Universal Primary Education-for a 2nd time – in Anglophone Africa', in M. Beveridge, K. King, R. Palmer and R. Wedgwood (Eds) *Reintegrating education, skills and work in Africa. Towards Informal or Knowledge Economies? Towards Autonomy or Dependency in Development?* Edinburgh: Centre of African Studies, University of Edinburgh: 65-84.
- Wolfowitz, P. (2006) 'Rethinking infrastructure for development', *Annual Bank Conference on Development Economics (ABCDE)*, Tokyo, May 2006.

- World Bank (1969) *Cost-benefit Analysis in Education: a Case Study on Kenya*, prepared by H.H. Thias and Martin Carnoy, Economics Department, Report EC-173, Washington: World Bank.
- World Bank (1974) *Education Sector Working Paper*, Washington: World Bank.
- World Bank (1980a) *World Development Report, 1980*, Washington: World Bank.
- World Bank (1980b) *Education Sector Policy Paper*, Washington: World Bank.
- World Bank (1988) *Education in Sub-Saharan Africa. Policies for Adjustment, Revitalization, and Expansion*, a World Bank Policy Study, Washington: World Bank.
- World Bank (1991) *Vocational and Technical Education and Training*, a World Bank Policy Paper, Washington: World Bank.
- World Bank (1995) *Priorities and Strategies for Education*, a World Bank Review, Washington: World Bank.
- World Bank (1996) *Tanzania: The Challenge of Reforms: Growth, Incomes and Welfare. Volume 1*, Washington: World Bank.
- World Bank (1998) *Primary and Secondary Education in Kenya: a Sector Review* (lead author Anil Deolalikar), Washington: World Bank.
- World Bank (1999a) *Tanzania – Social Sector Review*, Washington: World Bank.
- World Bank (1999b) *Education Sector Strategy*, Washington: World Bank.
- World Bank (2000) *Attacking Poverty: World Development Report 2000/01*, Washington: World Bank.
- World Bank (2001) *A Chance to Learn: Knowledge and Finance for Education in Sub-Saharan Africa*, Washington: World Bank.
- World Bank (2002) *Constructing Knowledge Societies: New Challenges for Tertiary Education*, Washington: World Bank.
- World Bank (2004a) *Skills Development in Sub-Saharan Africa*, Washington: World Bank.
- World Bank (2004b) *Education in Rwanda. Rebalancing Resources to Accelerate Post-Conflict Development and Poverty Reduction*, Washington: World Bank.

- World Bank (2004c) *Books, Buildings, and Learning Outcomes: An Impact Evaluation of World Bank Support To Basic Education in Ghana*, Operations Evaluation Department, Report No. 28779, Washington: World Bank.
- World Bank (2004d) Programme Document for a proposed financing to the United Republic of Tanzania for a Secondary Education Development Program, Report No 27613, Washington: World Bank.
- World Bank (2005a) *Education Sector Strategy Update. Achieving Education For All, Broadening our Perspective, Maximizing our Effectiveness*, Washington: World Bank.
- World Bank (2005b) *Expanding Opportunities and Building Competencies for Young People. A New Agenda for Secondary Education*, Washington: World Bank.
- World Bank (2005c) Project Information Document for an 'Education Sector Support Project', Appraisal Stage, Report No. AB1578, October 27, 2005, Washington: World Bank.
- World Bank (2005d) *Capacity Building in Africa: an OED Evaluation of World Bank Support*, Operations Evaluation Department, Washington: World Bank.
- World Bank (2006a) *Global Economic Prospects 2006. Economic Implications of Remittances and Migration*, Washington: World Bank.
- World Bank (2006b) *Doing Business in 2006: Country Data Profiles*, Washington: World Bank (<http://www.doingbusiness.org/>).
- World Bank (2006c) *World Development Report 2007: Development and the Next Generation* Washington: World Bank.
- World Conference on Education for All (1990) *World Declaration on Education for All and Framework for Action to Meet Basic Learning Needs*, World Conference on Education for All, Jomtien, Thailand, March 1990.
- World Education Forum (2000) *The Dakar Framework for Action. Education for All: Meeting our Collective Commitments. Including Six Regional Frameworks for Action*, Paris: UNESCO.

Appendix: List of Papers from the Project

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5. *Beyond Basic Education in Rwanda: Balancing Medium-Term Goals and Long-Term Visions*. Rachel Hayman
6. *South Africa: Post Basic Education and Training for Growth, Employment and Poverty Reduction*. Salim Akoojee and Simon McGrath
7. *Post-Elementary Education, Poverty and Development in India*. Jandhyala B G Tilak.

Conference papers

Paper presented at Development Studies Association, 6 November 2004, London

Bridging Research and Policy on Education, Training and their Enabling Environments. (A reviewed version of this paper is now published in the *Journal of International Development* 17(6): 803-817, 2005)

Papers presented at 8th UKFIET International Conference on Education and Development, 13-15 September 2005, Oxford

PDF versions available from <http://www.cas.ed.ac.uk/research/projects.html> (Reviewed versions of these papers are available in a special issue of *International Journal of Educational Development*, 24(7): Beyond Basic Education and towards an Expanded Vision of Education for Poverty Reduction and Growth? (2007).

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5. *Education and Poverty Reduction in Tanzania*, Ruth Wedgwood.
6. *The South African Development State, Poverty and Post-Basic Education and Training*, Salim Akoojee and Simon McGrath.

Paper presented at the USAID Education Conference, 'Moving From Access To Relevance: Improving The Quality Of Education', August 8th-11th, 2005, Washington D.C.

Beyond the Basics: The Need for a Balanced Education and Training System in Developing Countries, Robert Palmer. (A reviewed version of this paper is now published in the *Journal of Education in International Development* 2(1) 2006).

Reintegrating Education, Skills and Work in Africa: towards informal or Knowledge Economies? Towards Autonomy or Dependency in Development? 27th to 28th April, 2005, Centre of African Studies, University of Edinburgh

The Centre of African Studies' annual conference in 2005 was run in conjunction with the research project. It brought together policy makers and researchers from around the world to discuss issues relevant to the research. An edited compilation volume of the papers has been published by the Centre of African Studies as part of its Conference Proceedings Series, available from <http://www.cas.ed.ac.uk/research/confvols.html>

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08/07 1K Produced for DFID by Fuller-Davies Limited

ISBN 1 86192 872 6