

Education and Poverty Reduction in Tanzania

*Ruth Wedgwood, PhD candidate, University of Edinburgh**
ruth.wedgwood@ed.ac.uk

The Education for All (EFA) movement and the education targets within the Millennium Development Goals (MDGs) have provided an impetus for many African countries to push for Universal Primary Education (UPE), often with extensive external support. Aside from the rights based argument for the importance of UPE, policy documents have frequently justified the need for investment in education by pointing to the poverty alleviating benefits that have found to be associated with it (see for examples UNESCO 2002, 2003). The focus on the primary sector is justified by arguments of equity and evidence that in countries where primary education is far from universal, investments in the primary sector give the highest social rates of return. As noted elsewhere (Williams 2005), there is an ominous sense of *déjà vu* about this rush to achieve UPE by 2015. Many countries in Africa have at sometime in the past half century come close to achieving UPE and yet the hoped-for benefits in terms of social and economic development have not been very evident. Impressive surges in primary enrolments in the 70s and 80s were in many cases followed by regression in the 90s.

Tanzania is one of the most pertinent examples of a country where earlier efforts to get all children into primary schools yielded little apparent benefit in the long run. Tanzania came very close to achieving UPE in the early 80s but by the end of the 20th century less than 60% of primary school-aged children were in schools. Although a relatively high percentage of the adult population have passed through primary school, Tanzania remains one of the poorest countries in the world. Reasons why primary education did not lead to poverty reduction in the Tanzanian case can be found both within the education system and in the environment into which primary graduates entered. This paper reviews the evidence of returns to education in the Tanzanian context and examines the factors that limited the realisation of the benefits of education in the past. It considers lessons learned from Tanzania's earlier experiences with UPE and then looks at current efforts to expand access to education. The recent expansion of the primary education system appears likely to have more positive outcomes than the previous UPE drive but the narrow secondary education system has limited teacher supply. A programme to expand access to secondary education was introduced in 2004 but the rate of expansion is so high that quality is being forfeited as it was in the first UPE drive.

What benefits does education yield in the Tanzanian case?

A global review of rates of return data by the World Bank (Psacharopoulos and Patrinos 2002) could give no data on social rates of return in Tanzania, only private rates of return. Dar (2000) gives figures for social rates of return as 3.6% for primary, 1.5% for secondary and

* This paper draws on a longer study conducted as part of a multi-country study on post-basic education and training funded by DFID. The full study (Wedgwood 2005) 'Post-Basic Education and Poverty in Tanzania' is available in electronic format from <http://www.cas.ed.ac.uk/research/pbet.html> together with the other country papers. This paper also draws on PhD research on teachers and teaching in Tanzania, financed by the ESRC (UK) under award number PTA-030-2002-00347.

negligible for higher and vocational. Whilst these figures imply that investment in primary is the most cost effective in terms of social rates of return, it should be noted that these calculations were based on data from the early 1990s when primary education was very far from universal. Evidence from other countries (Mingat and Tan 1996; Appleton 2001) suggests that as primary enrolments rise and the requirements of the labour market change, the rate of return to primary education falls relative to the rate of return for secondary education.

Boissiere, Knight and Sabot (1985) explored the possible mechanisms through which secondary education can lead to higher earnings within waged employment. The authors attempted to distinguish between “cognitive achievement” (knowledge and skills acquired through schooling), native ability and years of education. They found that attendance at secondary school in itself was not sufficient to guarantee success in the labour market but that the level of cognitive achievement mattered. They also found that more innately able primary leavers earned less than less able secondary leavers. These findings indicate that higher rates of return for secondary education are not simply credentialism or due to the education system screening out those of lower ability but is partly due to what is learned in schools.

Data from the 2000/2001 Integrated Labour Force Survey showed that primary graduates earn almost double the wages of those with no education; however, the increment between those with secondary and those with only primary is much greater, at 732 TSh per hour compared with 201 TSh. Controlling for experience, location and gender, it was found that a wage earner with complete primary earned 75% more than one with no schooling, whereas a secondary school graduate earned 163% more (World Bank 2004). It has also been found that most graduates of post-primary formal education from the 90s have ended up in waged employment by 2001 (Mukyanuzi 2003). This data supports the claim that the labour market for those with post-primary education is far from saturated. There is also some evidence that entrepreneurs with post-primary education tend to establish more profitable enterprises (O’Riordan, Swai et al. 1997).

According to the ILFS (NBST 2004), 82.1% of the employed labour force work in agriculture, forestry or fishing. Returns to education in terms of increasing agricultural productivity would imply a potential for education to have a great effect on poverty reduction. Empirical quantitative data for the impact of education on agricultural productivity is scarce for Africa. The influential research by Lockheed, Jamison and Lau (1980) on returns to education in agriculture indicated that education makes very little difference to farm productivity in “non-modernising” environments. The environment in most rural areas of Tanzania would be classified as non-modernising according to the conditions given. A review by Appleton and Balihuta (1996) gives two Tanzania based studies. The first, from 1986, found that completed primary education was correlated with a 27% increase in crop production but insignificant results for livestock rearing. A second study from 1995 carried out in the Kilimanjaro region found that four or more years of education has a positive and significant effect on farmer productivity. 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).

According to the UNDP’s statistics (UNDP 2004), the total fertility rate in Tanzania in the early 70s (1970-75) was 6.8 births per woman which has dropped to 5.1 (2000-2005). This 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 the 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). The extent to which education has contributed to this fall is debatable but what is clear is that high primary enrolments did not lead to a dramatic drop in fertility in Tanzania. Figures for fertility by education level (see table 1) indicate that 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 but the difference 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.

Table 1: 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 p84

The relationship between education and HIV/AIDS prevalence is a complex one that appears to be changing over time. Studies carried out in the early 1990s in Tanzania and in neighbouring countries found that the higher the level of education, the greater the infection rates (Kelly 2000; Hargreaves and Glynn 2002). This was probably due to more educated populations being more mobile and hence more likely to be exposed. More recent evidence from Zambia has shown that whilst infection rates increase among those with lower education levels they decrease for those with medium and higher levels of education (Kelly 2000). In Uganda, infection rates in the early 90s were similar across education levels but started to decrease among secondary graduates in 1995 and among primary graduates in 1998 (UNESCO 2004).

The research on the returns to education remains thin but some of the evidence would indicate that the benefits of primary schooling have been more limited in the Tanzanian case than might have been expected from the international research data. The limited development experienced in Tanzania during the 20 years following near UPE is also clear evidence that the benefits of primary schooling are far from automatic. There is some evidence of a threshold effect at secondary level, with certain benefits such as increased incomes and reduced fertility being much more pronounced for those with secondary education. This ‘threshold effect’ for incomes can be partly explained by the structure of the education system itself. Currently only a small minority of the population have post-primary education so

competition for jobs is limited and wages are relatively high. Apparent thresholds for non-income benefits indicate that achieving UPE without expansion of post-primary education will only have a limited effect on poverty reduction.

Universal Primary Education in Tanzania: Lessons from History?

The education system in Tanzania was based on the philosophy of Nyerere's *Education for Self Reliance* (Nyerere 1967). This has a strong pro-poor focus, urging for primary education to be terminal for the majority. The curriculum was intended to equip pupils with the skills needed for self reliant, rural livelihoods rather than for further academic education. Post-primary education was to be limited in quantity to produce enough graduates to supply the predicted manpower requirements and no more. In the late 70s 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 'oipay', has become a colloquial term associated with low quality education rather than with universalisation. Some jest that the letters UPE stand for *Ualimu Pasipo Elimu* (teaching without education). Expansion of primary without expansion of secondary led to reduced transition rates, which was perceived by parents as reduced quality of primary schooling. 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 who had not attended secondary school. The Government is still paying for the retraining of teachers who were originally employed with limited post-primary education (grade B/C) as a temporary measure back in the 1980s. 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 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 qualifications 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 outcome of these conditions was that many children dropped out of primary school or were never enrolled. Of those that lasted the seven years, around 80% failed the final examination.

The decline in quality at primary level had repercussions throughout the education system. Even with the exceptionally low transition rates from primary to secondary, entrants into secondary education generally have very low levels of competency in key skills (Malekela 2000). Poor levels of English greatly inhibit the quality of learning at secondary schools (Roy-Campbell and Qorro 1997; Brock-Utne and Holmarsdottir 2004). The decline in standards of students' communication skills has even been noted at university level (Cooksey, Levey et al. 2001). The limited secondary education system has led to a very limited pool from which to draw teachers for both secondary and primary levels. Many of those who do go into teaching have passed through a very impoverished education system, and so a cycle of poor teaching is perpetuated.

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 has been the rise of the private tuition industry. This has been exacerbated by poorly paid teachers who feel that they need to subsidise their salaries with extra work. There are reports that some teachers deliberately underteach in order to coerce pupils into attending their private tuition classes (Rajani 2001). For the primary school leaver examination, there is a close correlation between those who receive private tuition and those who pass and get selected for secondary school (Mbelle and Katabaro 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 is very marked (Davidson 2005).

The restricted number of secondary places also may have contributed to inequality. Knight and Sabot (1990) found that expanded access to secondary 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.

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.

The external environment

The failure of expansion of primary schooling to translate into lasting poverty reduction was not simply due to the delivery context of poor and declining school quality. The environment external to the school system was not conducive to enabling primary graduates to use their education to lift them out of poverty. Obstacles to realising the benefits of education were physical, economic, political and cultural. Until the 1990s, *Education for Self Reliance* deposited graduates into a context where the central state was the main provider of employment, goods and services and where there were few means for setting up business or investing in farm improvements. 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 farmers to increase output and to engage in sales through formal markets. Small businesses faced heavy taxation and licensing fees, payment of which often needed to be facilitated through bribery (Tripp 1997; URoT 2003). This encouraged a culture more of state reliance than of self-reliance. The manpower planning approach to post-primary education in the 1970s may also

have helped to contribute to a culture in which education was assumed to lead to formal employment by the state in positions that did not necessarily involve much work. The limited secondary education became highly extractive, removing the more academically able members of rural communities by directing them into urban based jobs.

Nearing UPE in Tanzania gave few apparent returns in terms of human development and was not sustainable. As Tanzania heads once again for UPE, it is necessary to consider whether the environment, both within schools and outside of them is significantly different now to how it was in the 1980s and whether these different conditions are sufficient to enable primary education to be sustainable and to lead to poverty reduction this time around.

The Primary Education Development Programme: Will UPE work this time?

Tanzania is currently making good progress towards achieving the goal of UPE by 2015. This year it is claimed that the national NER has reached 95%, up from 59% in 2000 (Mungai 2005). Since the year 2000 the number of children enrolled in primary schools has increased by over 3 million. This rapid growth is a result of the decision to drop primary school fees in 2001 and the instigation of the Primary Education Development Programme (PEDP) in July 2002. The main quantitative aim of PEDP is to achieve UPE (the original target date was 2005). Qualitatively, it aims at reducing teacher pupil ratios to 40:1, providing teachers with in-service training and providing a US\$10 grant per student to be spent on teaching-learning materials.

Initially in PEDP there was a deliberate focus on quantity, as the main priority was seen as getting children into schools and building physical capacity to accommodate them. It was also hoped that this would provide the momentum for changes in quality¹. Quantitative progress has been impressive. Some regions have reputedly attained UPE (measured by 100% NER). Others still have NERs below 80% and the goal of achieving UPE by 2005 has not been met. There has been an apparent leap in quality as far as the results of the Primary School Leaving Examination (PLSE) go, with 40.1% passing in 2003 compared with 27.1% in 2002 and 19.9% in 1999 (Mungai 2004). However, improving pass rates probably reflect changes in the examinations more than changes in the quality of education.²

As the programme has progressed the emphasis has remained on quantity. Sumra (2003:3) comments that “At the community level key stakeholders have seen no evidence of efforts to improve quality”. The pupil teacher ratio has worsened from 46:1 to 59:1, and is as high as 74:1 in some regions (URoT MoEC 2004a). In individual schools there are classes of up to 200 or more (Sumra 2003). Many schools have adopted double shift teaching to cope with the increased enrolment. This has led to a reduction of teaching hours from 6 to 3.5. District spending on learning resources has mainly gone on expensive science kits but few teachers have the skills to use these. There has been a great deal of construction but most of this has been classrooms. Far fewer teachers’ houses or latrines have been built (Mushi, Penny et al. 2003).

¹ Jonny Baxter, former education adviser for DfID Tanzania, personal communication 2004

² In 2003 the PLSE changed from 3 papers (Language, Sciences, Mathematics) to 4 (Kiswahili, English, Sciences, Mathematics). Thus the weighting for the mathematics paper, in which pupils tend to score least, was reduced and the weighting of marks for Kiswahili increased (Davidson 2005).

Enrolment rates have soared but drop out rates are high, nearly 40% in some regions. Transition rates have shown a decrease since the introduction of PEDP, with more students dropping out and more repeating. In 2002/2003 over 20% repeated standard IV, the year during which pupils sit the first set of public examinations (URoT MoEC 2003). Increased repetition rates may be in part due to the removal of school fees leading to parents being more willing and able to put their children through an extra year of schooling, but is also indicative of falling quality and results in reduced efficiency.

Tanzania has always struggled to get enough school leavers with good passes in the core subjects to enter teacher training (Chediell, Sekwao et al. 2000). The rush to train teachers may have led to a lowering the minimum qualification requirements of those being admitted for teacher training. The *Education and Training Policy* (URoT MoEC 1995: 48) states that minimum admission requirement for teacher education certificate course is division III at O' level.³ Taking the year 2000 O' level candidates as a sample, there were 47,389 candidates of whom 12,226 (25.8%) scored division III and above. The following year 13,090 students joined form V. Assuming that the form V students came from the higher achieving O' level candidates, it seems highly unlikely that many of the 6768 trainees enrolled in the first year of the certificate teacher training course in 2001 had division III or above in their O' levels. The secondary education system simply wasn't producing enough students with reasonable qualifications to progress to further education and to supply quality primary teacher trainees.⁴ According to the 2003 Joint annual Review of PEDP (Mushi, Penny et al. 2003), teacher training colleges are heavily over subscribed, which allows them to select higher quality candidates, although it does not mention what proportion of applicants meet the official minimum of division III. Anecdotal evidence would suggest that the grade requirements for entering teacher training have increased in recent years but it is still the case that many trainees do not have division III.

PEDP, like the previous UPE drive, has led to teacher training being restructured and the college based component shortened. Instead of spending two years in college with periods of teaching practice, trainees stay one year in college and one year in field placements. The colleges were given no guidelines on how to compress a two-year curriculum in to one year. Support for trainees during their placement year has been inadequate both financially and professionally, leading to many trainees leaving their posts. Until recently, there was no evidence of any form of mentoring by education professionals other than assessment by the inspectorate (Mushi, Penny et al. 2003). Despite all this there has been broad satisfaction with the trainees and they are declared to be "definitely not like the "UPE" teachers "trained" in the 1970s" (Mushi, Penny et al. 2003: 46). In-service training has now been given to three teachers from every school. Grade B and C teachers who were employed without O' levels under the previous UPE drive have now been able to upgrade through a Kiswahili medium self-directed study programme.

It was originally proposed that there should be incentives to encourage teachers to work in remote areas. To date, there has been no incentives package and slow progress on the construction of teachers' houses has been a disincentive. The strategy used to fill rural posts has been to send trainees to these areas for their in-school training year, hoping that they will stay. This strategy has several disadvantages. First, the trainees are put in the schools with the fewest resources for supporting them. At the best, this leads to teachers with poor professional

³ Division III is 22-25 points where A is scored as 1, B=2 etc, scored for the best 7 examination results, so represents an average grade of C/D

⁴ Figures from Basic Statistics in Education 1999-2003 (URoT, MoEC 2003)

development; at worst it could lead to many teachers dropping out of the profession. In 2003 the President's Office approved the recruitment of 11,651 teachers but only 9,711 (83%) new teachers reported to their workstations (URoT 2004a). In some regions 20% of trainees absconded from their placements (Mushi, Penny et al. 2003: 46). The second disadvantage is that rural schools could become largely staffed by inexperienced trainees with a high turnover, thus reducing quality of education in these schools and increasing the quality gap between rural and urban schools.

Qualitative improvements may have been slower to be realised than had been hoped for but this has partly been due to the time needed for the new delivery systems to develop. The financial commitment to PEDP from donors and the government is being maintained and it is still relatively early to evaluate PEDP's impact on quality. The learning environment that is being developed is very different from that of the UPE classrooms of the 80s, at least materially. Changes in the quality of teaching are likely to be much more gradual.

Secondary Education

Despite its relative neglect in terms of funding, both from the government and from donors, and its low profile within the national development vision, *Vision 2025* (URoT 1999), the secondary school system grew considerably from 1999 to 2004 with the majority of the growth being accounted for by new community-built government day schools. Expansion of the private sector has slowed considerably since the 1990s, indicating that the demand for private education from those who can afford it has mostly been met and there is limited capacity for further expansion. The construction of secondary schools by the local communities, in the face of extensive poverty and very limited government support, is indicative of the high social demand for secondary education. Since demand for education and ability to construct schools is not evenly distributed, the growth of community schools has increased regional disparities.

Access to secondary education 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, which until recently were 40,000TSh (40US\$)⁵, were arguably unaffordable for most Tanzanians and the burden is proportionately much greater for poorer households (World Bank 2004: 52).

Whilst government spending per pupil at secondary school has been calculated to be around 7 times the spending per pupil at primary (Dar 2000), secondary schools face a similar crisis in quality (Malekela 2000; Mushashu 2000). There is evidence of some improvements in recent years. As with the PLSE, there has been a steady increase in the percentage of students passing the form IV examination with the percentage of those getting divisions I-III rising from 21.3% in 1999 to 39.1% in 2003. The public spending per student in government schools has increased from a low of under 60,000 TSh in 1998/99 to around 120, 000 TSh per

⁵ Fees were reduced to 20,000 TSh in Jan 2005 under SEDP

student in 2003/04.⁶ Government spending on textbooks is only \$0.61 per student (World Bank 2004).

Over the country as a whole there was, until recently, no absolute shortage of teachers (World Bank 2004). Pupil teacher ratios stand at 22:1, but this ratio hides rural-urban disparities and shortages in subjects such as science and mathematics. In terms of quality of teaching, there has been a prolonged vicious cycle of poor educational quality in primary and secondary schools producing school leavers with weak subject knowledge who have gone into teaching and perpetuated the same teaching methods that they were exposed to themselves. Teacher training institutions have struggled to fill their courses and as a result have taken on trainees with low grades. In the 80s University of Dar es Salaam lowered its entry point into the education (science) course to 3.5 points at A' level (equivalent to 3 Es and a subsidiary) in order to get enough students to enter to cater for the demand of teachers (Chonjo 1990: 8). At diploma level most trainees enter with a mixture of Ds and Es, and many with only 2 E grades. In practice this means that many trainees lack understanding of the fundamental concepts that they are expected to teach. Even with such a low entry point, teacher training colleges cannot fill all their places (Osaki and Njabili 2003).

When considering quality of secondary education in Tanzania, the issue of the medium of instruction cannot be ignored. Whilst primary education is taught through Kiswahili, secondary education is officially taught through English medium. The choice of the medium of instruction in education has been hotly debated throughout Tanzania's history (see Brock-Utne and Holmarsdottir 2004). The data from numerous studies implies that the level of English of both teachers and students is a severe limitation on the quality of learning in secondary schools. Many academics argue that it is no longer feasible to achieve effective learning in the majority of secondary schools using an English medium (Roy-Campbell and Qorro 1997; Senkoro 2004). Curriculum delivery through a foreign medium encourages rote learning and reduces the chance of life skills education (e.g. HIV/AIDS prevention) leading to positive behaviour change. Since the use of English impacts negatively on the learning of secondary students, it in turn impacts on the quality of primary teachers. Much of primary teachers' content knowledge will have been taught to them through a language that they lack fluency in, often by teachers who struggle with English themselves; hence primary teachers grasp on content knowledge can be very fragile.

The low quality of education and the financial burden of fees on parents have had negative effects on efficiency in terms of high drop out rates. Out of 83,509 students in form one in 2001 there were only 60,861 in form IV in 2004, meaning that less than 73% of the original cohort continued directly to form IV (URoT MoEC 2004a). The lowest transition rates are for form II to form III, with the form II national examinations acting as a barrier to progression. Retention is much lower for girls than for boys, so whilst the gender balance is close to 50:50 in form I, girls make up around 40% of those leaving school. This is largely due to girls' poorer performance in the form II examinations. The retention rate for girls in the 2001 form I cohort in government schools was 61%. In some regions the retention rate is very low. In Lindi and Rukwa, only 50% of those students enrolled in form I in 2001 reached form IV in 2004. The number of girls in form IV in 2004 in Lindi and Mara regions was only a third of the number of form I girls in 2001, implying that two thirds of girls had dropped out or transferred to other regions.⁷

⁶ Calculated from United Republic of Tanzania, M.o.E.C. (1999a) and World Bank (2004).

⁷ Calculated from Basic Statistics in Education Regional Data 2001/2004 (URoT, MoEC 2002 & 2004b)

The problem of low retention of both teachers and students is most acute in the rural areas. This problem is typified by the case of one rural school at which the author once worked.⁸ The school was built to accommodate two-stream entry and accepts up to 80 form I students each year. It has good rooms, smart, well-equipped laboratories with piped water, a good supply of textbooks and a small library. However, the school has been without a qualified mathematics teacher for several years and there is only one qualified science teacher. Most students rent rooms in town as the catchment area is wide but there are no boarding facilities. Many students live in poverty, working out of school hours to earn enough money for food and rent. The majority of students don't manage to last the four years at school under these conditions, with large numbers dropping out after the form II examinations. In 2004 only 16 students sat for their form IV examinations, giving a retention rate of only 20%. While this is a rather extreme case, the dropout rate in many rural schools is much greater than national statistics would suggest.

Although the chances of a child from a poor rural family getting into a boarding school are currently very slim, for many families boarding schools remain the only truly viable option for quality secondary education. Few rural communities are served by day schools. As illustrated by the example above, students from rural areas often end up renting accommodation so that they can attend a day school but 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). These conditions tend to have a very negative impact on their learning. To alleviate the situation of students living away from home to attend day schools, some communities have built hostels, especially for girls. This could provide an interim measure while the diameters of school catchment areas remain larger than what is feasibly commutable for most students. Hostel charges are often above what poor families can afford and they are not available in all areas. Government boarding schools have the potential both to be regressive, if the majority of students come from more affluent families, as is the case at present, or to be progressive, by providing education for children from areas lacking day schools. For the latter case to be realised, places at government boarding schools would have to be reserved for students from underserved areas.

Funds exist to help support bright children from poor families to attend secondary schools. At the local level many districts had district education trust funds but the income to these funds was largely dependent of the development tax which has been scrapped in an effort to encourage small enterprise, so this source of funds is being phased out. There are also funds available from the central ministry for orphans and children from poor families. Scholarships are designed to cover all of the costs of education, and not just the school fees. 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 rural areas qualify for secondary education. For the few that do, their 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 also anecdotal evidence of bright students from rural areas reporting to distant secondary schools only to be turned

⁸ The author visited the school on numerous occasions between 1999 and 2001 and met with teachers from the school in 2004.

away because their place, and even their identity, has been ‘sold’ to a child from a wealthier family.

Secondary Education for All?

In the Minister for Education and Culture’s budget speech of 2005, he recommended that the next government should aim for universal secondary education by 2015 (Mungai 2005). This follows the launch of the Secondary Education Development Programme (SEDP) in 2004 (Mungai 2004). The World Bank is providing US\$150 million for SEDP, mainly as a loan but partly as a grant. Poverty alleviation is built into a number of aspects of SEDP. Average Tanzanians (who are poor by any international standards) will have greater access to schools due to the increase in places and reduction of fees. The poorest will be helped with scholarships. SEDP plans to increase the scholarship scheme from 6,000 to 12,000 students per year. Building schools in rural areas through a grant system will bring money into these districts and provide some local employment as well as giving school access to the local children. Improvements in quality should reduce parents’ reliance on tuition and hence reduce parental costs as well as providing school leavers with more usable life skills. There could also be the indirect long-term benefits of a strengthened labour force leading to better development. It is hoped that reforms will improve overall efficiency in service delivery and empower local communities.

The vision of SEDP is to provide rural communities with day schools. There is no provision for building hostels as it is assumed that students will live at home. In the medium term this could lead to underutilisation of some schools as is already the case in schools such as the one described above. The SEDP document recognises the risk that the inability for parents to send their children to secondary school may mean that enrolments are limited by demand rather than supply (World Bank 2004: 17). There is evidence that this is already the case in some regions. In 2004 in Lindi region, 383 students out of the 1,996 allocated with secondary places (19%) did not report to the secondary schools (Simba 2004). To avoid this underutilisation, SEDP proposes to base allocation of grants on “careful analysis of demand” (World Bank 2004; 17) although this could exacerbate regional inequality.

The political commitment to improving education in rural areas is yet to be demonstrated through implementation. During the first year of SEDP it was proposed to build 1,456 classrooms in existing schools (i.e. in areas that already have schools) and only 458 classrooms in new schools in underserved areas (Mungai 2004); so while some areas would get new schools, the increase of supply in “served” areas is three times as high. In practice the enthusiasm and mobilisation of communities to build schools has been more dramatic than predicted and 464 new schools have opened this year (Mungai 2005). The need for an incentive package to keep teachers in poor rural areas is highlighted in the World Bank document and given as a conditionality on the second tranche. It is also mentioned in the draft of the second PRS (URoT 2004b). However, it was not mentioned in the budget speech introducing SEDP, and there are no plans so far for providing financial incentives. The experience from PEDP would indicate that support for rural teachers has not been a priority.

To some extent there are greater parallels between the 70s UPE expansion and SEDP than with PEDP. Even though the expansion of the primary education system through PEDP has been dramatic, in proportional terms it has still been lower than the rate of expansion under the previous UPE drive. UPE led to almost a tripling of primary enrolments between 1974 and

1980. PEDP will nearly double the number of primary pupils over a similar length of time (2000-2006). SEDP, even if it follows the medium growth trajectory, will lead to almost a tripling of the number of form I-IV students from 2004 to 2010. If the high growth trajectory is followed, the number of lower secondary students will increase by a factor of five over the same period.⁹

A limiting factor to the rate of school expansion is the rate at which teachers can be produced. In recognition of this it is planned to accelerate the rate of expansion of upper secondary in order to produce a large enough cadre from which to draw teachers. This expansion is limited itself by the number of graduate teachers. In order to increase the output of graduates, a high school (Mkwawa in Iringa) and two teacher training colleges (in Dar es Salaam and Mtwara) will become education colleges under the University of Dar es Salaam. It is proposed that the degree course will be reduced to three years. In the World Bank document (World Bank 2004) it is proposed that the diploma course is changed from two years to one year in colleges and one year in schools (as for primary teachers under PEDP) but there is no evidence of any intention to implement this in the near future. At the planned rate of expansion it is questionable whether enough secondary leavers can be attracted into teaching. For example, the number of new teachers to be employed in 2008 represents over 40% of the form six leavers in 2006.¹⁰ All these changes could have serious implications for quality.

Another element of SEDP that is reminiscent of UPE policies is the “crash programme” for training “licensed teachers”. These are form VI leavers who have been given a few weeks training and sent to teach in schools. 615 licensed teachers are already in schools (Osaki 2004). Given that the majority of form VI leavers getting division II and above will have found places at universities, these “licensed teachers” are likely to have fairly low A’ level grades. A promise that after two years of teaching they will get a place at university has made it more attractive than the alternative path of entering teacher training college and so entry to the programme was relatively competitive for the first year. In the Ministry of Education’s plan for SEDP (URoT MoEC 2004c) it is proposed that the training of licensee teachers will become the main source of new teachers, with over 30,000 licensee teachers entering into schools by 2010. This represents almost half the proposed total teaching force. It seems unlikely that these licensee teachers will receive much professional support if they constitute such a large proportion of the total number of teachers. Some of the new schools that have opened in 2005 are staffed almost entirely by form VI leavers.

An aspect in which SEDP currently differs from PEDP is the level of donor support. Whilst the programme has received strong support from the World Bank, many of the bilaterals have shown a marked reticence in their approach to it. Partly this is due to a feeling that it is still too soon, that PEDP should first be given time to be consolidated and for the qualitative aspects to be strengthened, and that primary education should remain a priority for funding. Many donors agree that there is a great need for secondary expansion, but feel that quality UPE should be attained first. There is a fear that SEDP could result in a withdrawal of funds from the primary sector when much input is still needed, especially in terms of quality.

⁹ Under UPE enrolments rose from 1,228,886 in 1974 to 3,361,198 in 1980. Under PEDP they are projected to increase from 4,875,764 students in 2000 to 8,166,608 in 2006. Enrolment at secondary (I-IV) for 2004 is 379,534, the projected enrolment for 2010 is 1,028,88 (medium growth) or 1,912,425 (high growth). All figures from URoT, MoEC 2003 and World Bank 2004.

¹⁰ Calculated from figures in Mungai 2004

Whilst the World Bank version of the SEDP document claims that “the main purpose of the adjustment operation is not quantitative” (World Bank 2004:16), the first objective is one of increasing access and the proposed rate of expansion is so ambitious that it is difficult to imagine that many resources will be left for qualitative improvements. The emphasis of quantity over quality in PEDP has been a growing point of contention between the government and the donor community. In SEDP, which is only just starting, the conflict is already evident. In the World Bank’s version of the document, a high growth and a medium growth scenario are given. The differing preferences for which scenario to follow are made quite clear:

GOT’s preference is to pursue a high growth scenario...to meet the labor market needs as well as to absorb the bulge of students from primary education in the next few years...However, because of the uncertainties about how the resource and institutional requirements for the high growth scenario would be met, it was thought prudent to start with the medium growth scenario which is considered more feasible. (World Bank 2004:7)

The Minister for Education and Culture’s budget speech, which followed the signing of the agreement, gave projected growth figures that exceeded even those of the high growth scenario (Mungai 2004). Many teachers have shown a somewhat cynical reaction to the news of SEDP, commenting that 2005 is an election year. The political pressure to invest in quantity rather than quality is considerable, especially with the first PEDP cohorts set to leave primary schools in 2008 and with long established targets of achieving 50% transition rates from primary to secondary by 2010 to attain. Whilst the benefits of expanded access are quickly appreciated by the electorate, benefits of investments in quality may not be appreciated until well after the completion of the next electoral term.

The External Environment: Can the benefits of education be realised?

Liberalisation since the 1980s has removed some of the obstacles that previously existed to enterprise. Small businesses have been exempted from paying licence fees and credit schemes have been established (URoT 2004c). Changes in taxation have also made it more profitable to farmers to grow cash crops. By the early 90s most cash crops had been deconfined and could be sold directly to the buyers without going through state marketing boards (Trulsson 1997). 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 of 5% of the farm gate price. The rapid spread of ICTs, in particular mobile telephones, is also helping to establish an environment that enables enterprise.

Despite these changes there are still many obstacles that could prevent individuals, especially those in rural areas, from being able to benefit fully from their education. In many cases conditions are less favourable to poverty reduction than they were in the 80s. Farmers’ access to credit actually fell between 1995 and 1999 and agriculture is less favoured by investors compared to other sectors (URoT 2003). In the World Bank commissioned PPA (Narayan 1997), participants reported that access to hospitals, markets and farm inputs had worsened between 1985 and 1995 due to deteriorating roads, reduction in local services and increasing

prices. The fall in the number of births attended by trained attendants¹¹ is indicative of reduced access to health facilities through deteriorating physical access and cost sharing practices, and is an example where an adverse environment has negated any possible gains from education.

For urban communities and farming communities with reasonable access to markets and services, the returns to education, both economic and social, are likely to be more evident this millennium that they were in the 80s. In rural areas current investment in education is unlikely to reap substantial returns unless there is concurrent development of infrastructure and services.

Conclusions

Tanzania provides a clear example that getting children in to school on its own is not enough for poverty alleviation. The quality of education has been so poor that many of the potential benefits of education have not been realised. Expansion guided by targets and a desire to achieve equity through UPE led to an impoverished public education system which has not provided a pathway out of poverty for the majority of the population. Progress to post-primary education has become limited to those able to supplement education through private means or those fortunate enough to live in areas served by the better schools. The recent expansion of the primary education system has not been proportionately as dramatic as the earlier expansion and the potential negative impact on quality has been mitigated through strong donor support, but quality remains a major problem and the high level of external support also raises questions of sustainability.

A major limiting factor on the quality has been the narrow post-primary education system. The low number of secondary leavers with good grades has meant that those entering teaching have a very low level of competence in their subject areas. In cases such as Tanzania, where the secondary education system is not producing enough quality graduates to supply enough primary teachers, a strong case can be made for public investment in secondary in order to establish a good foundation on which to build quality UPE. Coordinated development of the educational sub-sectors is more likely to develop a robust education system than sequential expansion. Development of the education system also needs to be coordinated with other development efforts to ensure that school leavers enter an environment in which they are able to utilise their skills and knowledge.

The World Bank's *New Agenda for Secondary Education* (World Bank 2005) argues that ensuring quality UPE requires concurrent expansion of secondary. It also warns against that uncontrolled expansion of secondary education can lead to increased inequality. The expansion of the secondary education system through SEDP is badly needed but the proposed rate of expansion could have serious long term impacts on quality. As was the case with many of the UPE schools of the 80s, the education available to the majority through SEDP may be of insufficient value to provide effective pathways out of poverty.

¹¹ This fell from 44% to 36% during the 90s (URoT 2003a)

References

- Appleton, S. (2001). Education, Incomes and Poverty in Uganda in the 1990s. Nottingham, Centre for Research in Economic Development and International Trade research paper 01/022, University of Nottingham.
- Appleton, S. and A. Balihuta (1996). "Education and Agricultural productivity: evidence from Uganda." Journal of International Development **8**(3): 415-444.
- Boissiere, M., J. B. Knight, et al. (1985). "Earnings, Schooling, Ability and Cognitive skills." The American Economic Review **75**(5): 1016-1030.
- Brock-Utne, B. and H. B. Holmarsdottir (2004). "Language policies and practices in Tanzania and South Africa: problems and challenges." International Journal of Educational Development **24**, (1): pp67-83.
- Chediak, R. W., N. Sekwao, et al. (2000). Private and Community Schools in Tanzania. Paris, IIEP.
- Chonjo, P. N. (1990). Research and teaching of Science in Tanzania. The Proceedings of the first subject-meeting in Science Education 24th-29th Sept, University of Dar es Salaam.
- Cooksey, B., L. Levey, et al. (2001). The Partnership for Higher Education in Africa: Higher Education in Tanzania: A Case Study. New York, Carnegie Corporation.
- Dar, A. (2000). Tanzania Country Study. Vocational Education and Training Reform: matching skills to markets and budgets. F. Fluitman, I. S. Gill and A. Dar. Washington D.C., World Bank: pp363-388.
- Davidson, E. (2005). Understanding and Improving Quality in Tanzanian Primary Schooling. School of Development Studies, University of East Anglia, Unpublished PhD Thesis.
- Galabawa, C. J., F. E. M. K. Senkoro, et al., Eds. (2000). The Quality of Education in Tanzania. Dar es Salaam, University of Dar es Salaam Faculty of Education.
- Hargreaves, J. R. and J. R. Glynn (2002). "Educational Attainment and HIV-1 infection in developing countries: a systematic review." Tropical Medicine and International Health **7**(6): pp489-498.
- Kelly, M. J. (2000). The Encounter between HIV/AIDS and Education, UNESCO.
- Knight, J. B. and R. H. Sabot (1990). Education, Productivity and Inequality: the East African natural experiment. Washington, D.C., IRBD/ World Bank.
- Kuleana (1999). The State of Education in Tanzania: Crisis and Opportunity. Mwanza, Kuleana.
- Leshabari, M. T. and Z. E. Masesa (2000). The Impact of Deteriorating Quality of Education in Schools on the Training of Medical Doctors in Tanzania. The Quality of Education in Tanzania. C. J. Galabawa, F. E. M. K. Senkoro and A. F. Lwaitama. Dar es Salaam, University of Dar es Salaam, Faculty of Education: pp135-144.
- Lockheed, M., Jamison, D. and Lau, L. (1980). Farmer Education and Farm Efficiency: A Survey. In Economic Development and Cultural Change **29**, 1: pp37-76, reprinted as World Bank Report Series No. 166, World Bank: Washington.
- Lwaitama, A. F., E. P. Mtalo, et al., 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

- Malekela, G. (1994). Parents' Attitudes and Strategies towards Education in Tanzania: Are they Changing over Time? Quality of education in the context of culture in developing countries. T. Takala. Tampere, University of Tampere, Dept. of Education.
- Malekela, G. (2000). The Quality of Secondary Education in Tanzania. The Quality of Education in Tanzania. C. J. Galabawa, F. E. M. K. Senkoro and A. F. Lwaitama. Dar es Salaam, University of Dar es Salaam, Faculty of Education: pp 61-76.
- Mbelle, A. and J. Katabaro (2003). School Enrolment, Performance and Access to Education in Tanzania. Dar es Salaam, REPOA/ Mkuki na Nyota.
- Mingat, A. and J. P. Tan (1996). Full Social returns to Education: estimates based on countries economic growth performance. Washington, DC, World Bank.
- Mukyanuzi, F. (2003). Where has all the Education gone in Tanzania? Employment outcomes among secondary school and university leavers. Dar es Salaam, DfID.
- Mungai, J. J. (2004). Hotuba ya Waziri wa Elimu na Utamaduni kuhusu Makadirio ya Matumizi ya Fedha kwa Mwaka 2004/2005 (Speech by the Minister for Education and Culture about the estimates for spending for the year 2004/05). Dodoma, United Republic of Tanzania, July 2004.
- Mungai, J. 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.
- Mushashu, B. (2000). The Issues of Quality of Public Secondary Schools: What ought to be done? The Quality of Education in Tanzania. C. J. Galabawa, F. E. M. K. Senkoro and A. F. Lwaitama. Dar es Salaam, University of Dar es Salaam, Faculty of Education: pp195-202.
- Mushi, P. A. K., A. Penny, et al. (2003). Joint review of the Primary Education Development Plan. Dar es Salaam, United Republic of Tanzania, Ministry of Education and Culture.
- Narayan, D. (1997). Voices of the poor - poverty and social capital in Tanzania. Washington D.C., World Bank.
- National Bureau of Statistics Tanzania (2004). Integrated Labour Force Survey, <http://www.nbs.go.tz/labourforce/> downloaded 07/12/04.
- Nyerere, J., K (1967). Education for Self Reliance, Arusha, United Republic of Tanzania.
- O'Riordan, J., F. Swai, et al. (1997). Educational Background, Training and their Influence on Female-Operated Informal Sector Enterprises. Dar es Salaam, REPOA/ Mkuki na Nyota.
- Osaki, K. M. (2004). Tanzania: Reflections on the Secondary Education Analysis and Development Programme. 2nd Secondary Education in Africa Conference, Dakar, 6th -9th June 2004.
- Osaki, K. M. and A. F. Njabili (2003). Secondary Education Sector Analysis. Dar es Salaam, Ministry of Education and Culture.
- Psacharopoulos, G. and H. A. Patrinos (2002). Returns to investment in education: a further update. Washington D.C., World Bank.
- Rajabu, A. R. (2000). Teachers' Education in Tanzania. The Quality of Education in Tanzania. C. J. Galabawa, F. E. M. K. Senkoro and A. F. Lwaitama. Dar es Salaam, University of Dar es Salaam, Faculty of Education: pp 251- 265.
- Rajani, R. (2001). Situational Analysis of Children in Tanzania. Dar es Salaam, UNICEF.
- Roy-Campbell, Z. M. and M. Qorro (1997). Language Crisis in Tanzania: the myth of English versus Education. Dar es Salaam, Mkuki na Nyota Pubs.
- Senkoro, F. E. M. K. (2004). The Role of Language in Education and Poverty Alleviation: tool for access and empowerment. Education, Poverty and Inequality. C. J. Galabawa and A. Narman. Dar es Salaam, In press.

- Simba, H. (2004). "Wagoma Shule". Majira. Dar es Salaam, 19th Aug 2004, p3.
- Sumra, S. (2003). Implementation of the Primary Education Development Plan: Voices from the Community. Dar es Salaam, HakiElimu.
- Tripp, A. M. (1997). Changing the Rules: the politics of liberalisation and the urban informal economy in Tanzania. Berkley & Los Angeles, University of California Press.
- Trulsson, P. (1997). Strategies of Entrepreneurship: understanding entrepreneurship and structural change in Northwest Tanzania. Linköping, Department of Technology and Social Change, Linköping University.
- UNDP (2004). Human Development Reports: country tables, http://hdr.undp.org/statistics/data/index_countries.cfm downloaded 01/12/04.
- UNESCO (2002). Education For All Global Monitoring Report: Is the World on track? Paris, UNESCO.
- UNESCO (2003). Education For All Global Monitoring Report 2003/4. Paris, UNESCO.
- UNESCO (2004). Education For All Global Monitoring Report 2004/5. Paris, UNESCO.
- UNESCO Institute for Statistics (2001). Education counts: Key statistics of national education systems CDrom. Montreal, UIS.
- United Republic of Tanzania (1999). Development Vision 2025. <http://www.tanzania.go.tz/vision.htm> (downloaded 15.04.04).
- United Republic of Tanzania (2003). Poverty and Human Development Report 2003. Dar es Salaam, Research and Analysis working group on Poverty Reduction.
- United Republic of Tanzania (2004a). Primary Education Development Plan: Progress Report for the Financial year 2002/03. Dar es Salaam, MoEC & PORALG.
- United Republic of Tanzania (2004b). Poverty Reduction Strategy II: first draft for second round consultations. Dar es Salaam, Vice President's Office.
- United Republic of Tanzania (2004c). Poverty Reduction Strategy Paper Progress Report 02/03. Dar es Salaam.
- United Republic of Tanzania, M. o. E. C. (1995). Education and Training Policy. Dar es Salaam, Government Printers.
- United Republic of Tanzania, M. o. E. C. (2002). Basic Statistics in Education 2001: Regional Data. Dar es Salaam, Ministry of Education and Culture.
- United Republic of Tanzania, M. o. E. C. (2003). Basic Statistics in Education 1999-2003. Dar es Salaam, Ministry of Education and Culture.
- United Republic of Tanzania, M. o. E. C. (2004a). Basic Statistics in Education 2004: Regional Data. Dar es Salaam, Ministry of Education and Culture.
- United Republic of Tanzania, M. o. E. C. (2004b). Basic Statistics in Education 1995-2004 National Data. Dar es Salaam, Ministry of Education and Culture.
- United Republic of Tanzania, M. o. E. C. (2004c). Secondary Education Development Plan 2004-2009: Final Document. Dar es Salaam, Ministry of Education and Culture.
- Wedgwood, R. (2005). "Post-Basic Education and Poverty in Tanzania." Post-Basic Education and Training Working Paper Series (N°1).
- Williams, P (2005) Universal Primary Education- For a Second Time-In Anglophone Africa Re-integrating Education, Skills and Work in Africa, Centre of African Studies, Edinburgh, April 2005
- World Bank (2004). Programme Document for a proposed financing to the United Republic of Tanzania for a Secondary Education Development Program. Washington DC, World Bank, Report No 27613.
- World Bank (2005). Expanding Opportunities and Building Competencies for Young People: A New Agenda for Secondary Education. World Bank, Washington DC