

**School Enrolment, Performance
and Access to Education in Tanzania**

School Enrolment, Performance and Access to Education in Tanzania

Research Report No. 03.1

Amon Mbelle
Joviter Katabaro
(University of Dar es Salaam)

RESEARCH ON POVERTY ALLEVIATION



MKUKI NA NYOTA PUBLISHERS LTD
P. O. BOX 4246, DAR ES SALAAM, TANZANIA

Published for: Research on Poverty Alleviation (REPOA)
P.O. Box 33223, Dar es Salaam, Tanzania
www.repoa.or.tz

by: Mkuki na Nyota Publishers Ltd
P.O. Box 4246, Dar es Salaam, Tanzania
www.mkukinanyota.com

©REPOA, 2003

ISBN 9987-686-61-3

All rights reserved.

Table of Contents

ABBREVIATIONS.....	viii
DEDICATION.....	ix
ABSTRACT.....	x
1.0 INTRODUCTION	1
1.1 EDUCATION, ECONOMIC GROWTH AND POVERTY REDUCTION: RECENT EVIDENCE	1
1.2 IMPACT OF FEMALE VERSUS MALE EDUCATION ON GROWTH AND POVERTY REDUCTION	1
1.3 INVESTMENT IN EDUCATION	1
1.4 EDUCATION DELIVERY IN TANZANIA	2
1.5 STATEMENT OF THE PROBLEM	3
1.6 OBJECTIVES OF THE STUDY	3
1.7 LIMITATIONS	3
1.8 ORGANISATION OF THE REPORT	3
2.0 SURVEY OF POLICIES AND PRACTICES FOR PRIMARY AND SECONDARY EDUCATION IN TANZANIA	4
2.1 ORGANISATION AND INFRASTRUCTURE	4
2.2 FUNDING	4
2.3 PROSPECT FOR EDUCATION FUNDING IN THE CONTEXT OF PRSP	8
2.4 THE EXAMINATION SYSTEM FOR PRIMARY AND SECONDARY EDUCATION	8
2.5 EXISTENCE OF PRIVATE TUTORING OR SHADOW EDUCATION SYSTEM IN TANZANIA	9
3.0 INDICATORS OF PRIMARY AND SECONDARY EDUCATION PERFORMANCE IN TANZANIA	10
3.1 ENROLMENT	10
3.2 PERFORMANCE IN EXAMINATION	11
3.3 THE POVERTY-EDUCATION (ENRORLMENT) NEXUS	12
4.0 DETERMINANTS OF ENROLMENT AND PERFORMANCE IN PRIMARY AND SECONDARY SCHOOLS: EVIDENCE FROM LITERATURE	12
4.1 EVIDENCE FROM OTHER COUNTRIES	12
4.1.1 <i>On Enrolment</i>	12
4.1.2 <i>On Performance (at both Primary and Secondary Levels)</i>	14
4.1.3 <i>Impact of External Factors</i>	17
4.1.4 <i>Gender Disparities in Performance</i>	17

4.2 THE UNFINISHED AGENDA IN PRIMARY AND SECONDARY EDUCATION: PERSISTANCE OF A STUBBORN “CRISIS”	17
4.2.1 <i>Situation after 2000</i>	18
4.3 HYPOTHESES	18
5.0 AN EMPIRICAL ANALYSIS OF THE DETERMINANTS OF ENROLMENT, PERFORMANCE AND POVERTY (ACCESS) IN PRIMARY AND SECONDARY EDUCATION IN TANZANIA.....	19
5.1 METHODOLOGY FOR ANALYSING THE DETERMINANTS OF ENROLMENT AND PERFORMANCE	19
5.2 RESULTS: ENROLMENT, PERFORMANCE, GENDER AND POVERTY ISSUES	20
5.2.1 <i>Primary Level</i>	20
5.2.2 <i>Secondary Level</i>	21
5.3 DOES TUITION MATTER?.	27
5.4 OTHER FINDINGS	29
6.0 STRATEGIC OPTIONS FOR SUSTAINING ACCESS, QUALITY, EQUITY AND EFFICIENCY	29
6.1 STRATEGIC OPTIONS	29
6.1.1 <i>Strong Commitment by Government to Increase Educational Capacity and Improve Quality.</i>	29
6.1.2 <i>Increasing Overall Level of Demand for Education.</i>	30
6.1.3 <i>Looking beyond Primary Education.</i>	31
6.1.4 <i>Increasing Female Access.</i>	31
6.1.5 <i>Increasing and Sustaining Partnerships.</i>	31
6.1.6 <i>Improving Efficiency.</i>	31
7.0 CONCLUDING REMARKS.	31
7.1 POLICY IMPLICATIONS.	31
7.2 AREAS FOR FURTHER RESEARCH	32

LIST OF TABLES:

Table 1: Estimated Costs and Benefits of Primary and Secondary Education in Tanzania 2000/2001	5
Table 2: Structure of Government Recurrent Spending in Primary and Secondary Education in Tanzania	6
Table 3: Structure of Government Development Expenditure in Primary and Secondary Education in Tanzania 1998-2003	6
Table 4: Donors’ Spending in Education in Tanzania, 1995 - 1999	7

Table 5: Expected External Inflows in the Context of PRSP in Tanzania 2000/2001-2002/2003	8
Table 6: Enrolment Trends in Primary and Secondary Schools in Tanzania (1970 - 2000)	10
Table 7: Gender Parity at Primary and Secondary Education in Tanzania 1995 - 2000	11
Table 8: Performance at “O” Level Exams, 1996 - 2000	12
Table 9: Factors Affecting Enrolment and Performance in Education in Tanzania (1980s and 1990s)	18
Table 10: Results: “O” Level Performance by Gender in Surveyed Secondary Schools in Tanzania (Year 2000)	22
Table 11: Results: Performance by Division and Type of Custody at “O” Level in Tanzania, 2000	23
Table 12: Results: Performance by Division and Father’s Occupation at “O” Level in Tanzania, 2000	23
Table 13: Results: Performance by Division and Mother’s Occupation at “O” Level in Tanzania, 2000	24
Table 14: Results: Performance by Division and Shifting Schools at “O” Level in Tanzania, 2000	24
Table 15: Results: Performance by Division and Type of School at “O” Level in Tanzania, 2000	25
Table 16: Results: Performance by Division and Location of School at “O” Level	25
Table 17: Results: Performance by Division and Type of Ownership of School “O” Level in Tanzania, 2000	26
Table 18: Results: Importance of Tuition to Continous Assessment and Examination Results	28
SELECTED REFERENCES:	33

ABBREVIATIONS

ECA	Economic Commission for Africa
ESDP	Education Sector Development Programme
GDP	Gross Domestic Product
HIPC	Highly Indebted Poor Countries
HIV/AIDS	Human Immuno Virus/Acquired Immune Deficiency Syndrome
ILO	International Labour Organisation
LDC	Least Developed Countries
MISA	Minimum Income for School Attendance
NECTA	National Examinations Council of Tanzania
PEDP	Primary Education Development Plan
PRSP	Poverty Reduction Strategy Paper
SEMP	Secondary Education Master Plan
UDSM	University of Dar es Salaam
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNRISD	United Nations Research Institute for Social Development
URT	United Republic of Tanzania

DEDICATION

This work is dedicated to the late Charles Rubaka, a Masters Degree in Education student for his relentless assistance in the reserach work, which led to the success of this product. He could not witness this version nor his graduation ceremony. May his soul rest in eternal peace.

ABSTRACT

The link between economic growth and human development has been a subject of rigorous empirical econometric work since the 1970s. Education, which is an important component of human development, has been found to explain varying levels of return and economic growth. Further, it has been found that countries that have equalised their educational achievements for men and women have, on average, grown faster, and that externalities of women's schooling are higher than those for men. Many empirical studies have concluded that child development (birth outcomes, survival, schooling and productivity in adulthood) depends more on increased schooling of the mother than increased schooling of the father.

This study examines education services delivery in Tanzania, with particular attention to enrolment, access and performance of girls. Data from the National Examinations Council of Tanzania (NECTA) were complemented with information from the field survey of schools.

In general, our study found that government funding of primary and secondary education is low compared to those many sub-Saharan Countries. A high proportion of public spending is on wages leaving little for school materials. However, private funding in primary and secondary schools is higher than public spending. Gender disparity, while not significant at primary level is still wide at secondary level. Performance is more determined by school characteristics than individual student characteristics. Females are disadvantaged at the level of schooling as well as absorption in the economy after completing school. Private tuition depicted ambiguous results just like continuous assessment grade when correlated with examination results.

The conclusion of the study calls for increased investment in education, especially for females and suggests two areas for further research: further analysis of private tutoring and the potential impact of recent education reforms such as abolishment of systems which in the past favoured girls and raising pass marks for examinations in standards four, seven and form two.

1.0 INTRODUCTION: THE IMPORTANCE OF BUILDING HUMAN CAPITAL

1.1 EDUCATION, ECONOMIC GROWTH AND POVERTY REDUCTION: RECENT EVIDENCE

Development economists came to pay greater attention to human capital, its development and contribution to economic growth mainly following rigorous econometric work in the 1970s on the link between education and growth (Griliches, 1995). Two main strands of evidence emerged: one, that improvement in the quality of human capital enhances productivity and absorptive capacity hence improving economic growth (estimates range from 3 per cent to 25 per cent (Psacharopolous and Woodhall, 1995)). And two, that investing in human capital improves social mobility and increases equality of opportunities which is an aspect of poverty reduction.

Ranis et al (2000) demonstrate by use of econometric techniques that higher levels of human capital development lead to increased economic growth. Gross Domestic Product (GDP) per capita growth was used as the dependent variable with initial levels of GDP and human development investment rate and income distribution as the independent variables. Initial levels of GDP and investment in human capital were found to be significant. Important and significant elements in the link from human capital to economic growth are investment rate and income distribution.

Findings show that additional years of education explain varying levels of return; that poor performance on human development tends to lead to poor growth performance which in turn depresses achievements in human development and that good or bad performance on human development and economic growth reinforce each other.

1.2 IMPACT OF FEMALE VERSUS MALE EDUCATION ON GROWTH AND POVERTY REDUCTION

Schultz (2002) summarizes empirical evidence by a number of studies on the rationale for disproportionate allocation of public expenditures towards women's education. Though no study has so far been able to extract marginal products of female or male labour from estimated aggregate production or cost functions and comparing their respective returns to schooling, household surveys and censuses have done so. The conclusion of many empirical studies is that "child development depends more on increased schooling of the mother than increased schooling of the father". The development of the child includes health of the child, schooling and productivity in adulthood.

1.3 INVESTMENT IN EDUCATION

Education has both private and social returns (e.g. improved economic growth).

A decision to invest in education will have two dimensions. At the individual (micro) level it will be guided by demand conditions. At the household level the demand conditions can be influenced by social-cultural considerations as well. At the level of the economy (macro) the decision will depend on returns i.e. the education sector will be considered like any other sector such as health, transport etc. Hence high-return sector will be given priority.

Investment in education is done at three levels: primary, secondary and tertiary or higher. Primary education equips one with basic skills and is defended from a human rights perspective: to be granted to citizens by all governments, and from the perspective of being a public good. Secondary and higher education mainly aim at meeting global challenges in science and technology as well as organisation of production processes and markets.

Lessons learned from developed and newly industrialised countries point to the fact that investing in education leads to faster growth. Further, countries that have equalised their educational achievements for men and women in the last several decades have on average grown faster (Schultz, 2002). It is for this reason that developing countries especially in Sub-Saharan Africa are now paying greater attention to investments in education, Tanzania included.

1.4 EDUCATION DELIVERY IN TANZANIA

Provision of education in Tanzania is guided by the 1995 Education and Training Policy (URT, 1995). Education has also been recognised as a priority sector in the fight against poverty as articulated in the Poverty Reduction Strategy Paper (PRSP).

However, this study is confined to primary and secondary levels in Mainland Tanzania.

PRIMARY EDUCATION

The future of primary education in Tanzania is to be guided by the Primary Education Development Plan (PEDP) developed within the context of Education Sector Development Programme (ESDP) covering the period 2002-2006. The following targets have been articulated: (URT 2001ff)

- ◆ Expansion of enrolment through construction of classrooms, teacher engagement and deployment;
- ◆ Quality improvement;
- ◆ Provision of more teaching and learning materials; and
- ◆ Capacity building to improve management systems.

The government took additional measures to improve enrolment beginning 2001 through constructing more classrooms and employing more teachers. School

fees and other parental contributions were abolished at primary school level and capitation grants were raised with an ultimate target of US\$10 per pupil. These measures resulted into increased Standard I enrolment in 2002 to 1.5 million from under a million during the previous year.

SECONDARY EDUCATION

Secondary education will in future be guided by the Secondary Education Master Plan (SEMP) (2000-2005) policies and strategies. Five key areas have been identified:

- ◆ Improving quality of education;
- ◆ Increasing access (expansion and affordability) to education;
- ◆ Equity (gender, geographical, socio-economic status) in education; and
- ◆ Efficiency (cost effectiveness, etc.) in provision of education.

Other areas of focus include:

- ◆ Strengthening management capacity; and
- ◆ Control of HIV/AIDS.

1.5 STATEMENT OF THE PROBLEM

The targets articulated above have been pursued for quite long with considerable difficulties. Many studies e.g. UDSM (2000), Rajani (2001) point out to low transition rates, low enrolment rates, high drop-out and repetition rates etc. In terms of achievement, pass rates are low especially for females. There is need to find factors that explain this contradiction.

1.6 OBJECTIVES OF THE STUDY

This study examines issues of performance and accessibility in primary and secondary schools in Tanzania as well as issues of funding, with a view to making recommendations in terms of strategic options and actions required at both levels of education in order to remedy the situation.

1.7 LIMITATIONS

Given financial and time constraints, the analysis had to be based on field data gathered from randomly selected primary and secondary schools in Tanzania. The results, it is hoped, will reflect the situation in other schools.

1.8 ORGANISATION OF THE REPORT

The report is made up of seven sections. Section one covers introductory remarks, and section two covers policies and practices at primary and secondary education levels. Section three is devoted to discussion of performance while section four

provides evidence from literature on enrolment and performance. Section five reports the results of empirical analysis. Strategic options for addressing deficiencies in the education system are suggested in section six. Concluding remarks form the subject of the last section.

2.0 SURVEY OF POLICIES AND PRACTICES FOR PRIMARY AND SECONDARY EDUCATION IN TANZANIA

2.1 ORGANISATION AND INFRASTRUCTURE

(a) Primary level

Primary (and pre-primary) is the lowest level of schooling up to seven years. The responsible institution for implementation of primary education is the Local Government. According to the most recent available statistics (URT 2002a) in 2001 there were 11, 873 primary schools, of which 11,799 (99.4 per cent) are public, offering schooling to 4,845,185 pupils of whom 49.3 per cent are female. There were in addition 29,700 foreign students of whom 47.8 per cent were female. Further, 10,003 were boarders (of whom 36.6 per cent female); 86,363 dropped out of school (49 per cent female) and 13,4891 were repeaters (50.2 per cent female).

There were 107,111 teachers (42.9 per cent female); 0.5 per cent diploma holders, 43.8 per cent grade A and 55.7 per cent grade B/C. Teacher/pupil ratio was 1:41 (average).

(b) Secondary Level

Secondary education is subdivided into lower (up to four years of schooling i.e. from Form I to IV) and upper or high school, Forms V and VI. Secondary education is under the auspices of the Ministry of Education and Culture. According to latest data (URT 2002a) in 2001 there were 289,699 students (46.2 per cent female) enrolled in Forms I-VI, of which 263,626 or 91per cent were in forms I-IV. Private schools had 123,899 (42.8 per cent) of Forms I-IV students. There were 937 schools with 528 or 56.4 per cent public and 409 private. The average teacher pupil ratio was 1:19 (1:20 for private schools).

2.2 FUNDING

Education funding is like any investment undertaking with costs and benefits forming the decision variables. Estimates of costs and benefits have been attempted by various studies as shown in Table 1.

Table 1: Estimated Costs and Benefits of Primary and Secondary Education in Tanzania 2000/2001 (Tshs.) (Actual)

	Government	Private	Total Cost	Private Benefits	
	Primary	29,100	39,500	68,600	Mean
				Median	49,758
Secondary	109,867	158,193	267,970	Mean (l)	108,083
				Median (l)	67,712
				Mean (u)	116,955
				Median (u)	98,000

Key: l = lower secondary; u = upper secondary

Sources: 1. URT (2000f) 2. URT (2001d) for benefits

Table 1 portrays two interesting issues: the high proportion of private (parental) expenditure over government spending and low rates of return. However, since these are only private benefits the assessment changes when social benefits are added.

The main sources of funding at primary and secondary levels are:

- ◆ Fiscal operations of the government.
- ◆ Donor funds
- ◆ Other sources

(a) Funding through Fiscal Operations of the Government

Recurrent Expenditure

Government spending is shown in Table 2 for recent years. For primary education a general rise in the share is shown while the opposite holds for secondary level. A high proportion of the spending goes to personal emoluments or wages (very high for primary level).

Table 2: Structure of Government Recurrent Spending in Primary and Secondary Education in Tanzania (actual %) 1996-2002

	1996/97	97/98	98/99	99/00	00/01	01/02
Share in total education spending:						
Primary	67.0	67.0	64.5	65.8	58.4	70.6
Secondary	7.0	9.0	7.4	6.5	6.3	6.2
Primary mix:						
Wage (%)	97.2	96.1	94.4	89.4	87.8	85.7
Non-wage (%)	2.8	3.9	5.6	12.2	12.2	14.3
Secondary mix:						
Wage (%)	73.0	77.0	62.5	66.5	73.0	66.3
Non-wage (%)	27.0	23.0	37.5	33.5	27.0	33.7
Education spending						
Tshs. Bill	79	95	107	119	237	238.03

Sources: 1. URT (2001a, f). 2. Galabawa and Mbelle (2002)

Development Expenditure

Table 3 shows development expenditure in recent years. Primary education accounts for much of development spending with its share in total education development spending rising marginally from 56.4 per cent during 1998/9 to 57.4 per cent during 2000/01. Investments in secondary education almost tripled during same period.

Table 3: Structure of Government Development Expenditure in Primary and Secondary Education in Tanzania 1998-2001 (Actual, %)

	1998/99	1999/2000	2000/2001
Primary	56.5	51.1	57.4
Secondary	10.5	13.6	29.1
Other levels	33.0	35.3	13.5
Total	100.0	100.0	100.0
Total Tshs. Mill.	2200	2100	9008

Sources: URT Budget Documents (various) percentages computed

Comparison with Other African Countries

Studies such as URT (2000f) and URT (2001a) acknowledge that education spending (recurrent) in Tanzania, averaging 2.6 per cent of GDP for the last ten

years (2.9 per cent in 1999) is quite low compared to other Sub-Saharan African countries (e.g. Gambia 3.3 per cent; Kenya 6.1 per cent; South Africa 6.4 per cent and Uganda 2.9 per cent).

(b) Donors' Spending

This source includes funds from multilateral as well as bilateral development partners. The expenditure by donors supports the development budget. Trends in recent years are shown in Table 4.

Table 4: Donors' Spending in Education in Tanzania: 1995-1999 Combined

	1995	1996	1997	1998	1999	Av. 95-99
Total TA/TC US\$ million	264.88	253.47	217.72	190.04	148.25	214.87
Education US\$ million	27.11	15.51	18.7	31.71	13.71	21.35
Education share (%)	10.2	6.1	8.6	16.7	9.2	n.a.
Donor share in total education spending (%)	4.2	0.1	6.9	11.8	n.a.	n.a.
In total primary spending (%)	1.6	0.2	5.4	8.9	n.a.	n.a.
In total secondary spending (%)	1.0	0.0	0.8	6.5	n.a.	n.a.

Key: TA = Technical Assistance; TC = Technical Cooperation
n.a. = not available

Sources: 1. UNDP for 1 and 2
2. URT 2000f for 4-6
3. Computed for 3

The expenditure by donors fell in absolute terms for total spending in education between 1995 and 1999 (1-2 in Table 4) though as shares in total education spending, primary and secondary increased over the 1995-1998 period. The data on donor funding have to be taken with caution given the difficulties in tracking donor spending (see for example Kessy, und.). However, this source increased substantially during 2001/02 especially for primary education to a tune of Tshs. 63.5 billion.

(c) Other Sources of Funding

These include numerous sources such as private, community, parental contributions, religious organisations that are difficult to track and aggregate.

However, a general conclusion drawn in many studies is that this source is growing in importance.

2.3 PROSPECTS FOR EDUCATION FUNDING IN THE CONTEXT OF PRSP (UP TO 2002/03)

The short to medium term Poverty Reduction Strategy Paper (PRSP) developed in the context of the Highly Indebted Poor Countries (HIPC) initiative has implications on fiscal government performance, fiscal sustainability as well as education funding which targets basic education (PRSP Table 2 p. 31 and Table 3 p.34). The sources of extra support are external flows in the form of direct support, project loans and grants and HIPC interim relief from the multilateral organisations.

Table 5: Expected External Inflows in the Context of PRSP in Tanzania 2000/2001 – 2002/2003

	1999/2000 Actual	2000/01 Budget	2000/01 Likely	2001/02 Project	2002/03 Project
Domestic revenue (Tshs. mill.)	777,645	861,402	897,300	989,500	1,098,455
As % of GPD	11.3	11.2	11.7	11.7	11.7
PRBS/MDF/BOPS	127,608	197,094	246,082	243,296	191,883
As % of GPD	1.9	2.6	3.2	2.9	2.1
Project loans	340,484	275,500	275,500	280,956	210,608
As % of GDP	4.9	3.6	3.6	3.3	2.3
HIPC multilateral	11,200	45,614	47,200	53,700	57,700
As % of GPD	0.2	0.6	0.6	0.6	0.6

Source: *URT (2001b)*

The projections on external resource flows hinge on Tanzania staying on course in economic reforms. HIPC Completion point was already reached in November (2001) for full qualification. HIPC relief is earmarked for social services, and as such primary education is to benefit.

2.4 THE EXAMINATION SYSTEM FOR PRIMARY AND SECONDARY EDUCATION

The examination system in Tanzania at primary level consists of an examination at standard four, continuous assessment with a final grade being awarded at standard seven and the primary school leaving examination. Selection to Form

It is however, in practice, dependent on performance in the final examination. The pass mark for standard 4 examinations was raised from 25 per cent to 45 per cent (for a pupil to qualify for entry into Standard Five) through Circular Number 1 of 2002 (URT 2002b).

Apart from performance in standard seven examination, selection to Form I was in the past also done using regional quotas and special consideration for females. This practice is to be discontinued effectively from 2002. In addition, by Circular No. 7 of 10/4/2002 the Ministry of Education and Culture raised the pass mark for Standard 7 examinations from 61 per cent to 65 per cent. A pupil has to score at least 21.7 per cent in each subject to be considered to have passed (URT 2002b).

The examination system at secondary level consists of continuous assessment and final examinations at forms two and four. By Circular Number 2 of 2002 (URT 2002b), the pass mark was raised from 21 per cent to 30 per cent. A student who scores less than 30 per cent will not proceed to form three but will be allowed to repeat form two. If she/he fails after repeating, the student will be discontinued.

These measures at both primary and secondary levels are aimed at safeguarding quality, but may affect the schooling of females.

One area of interest to policy makers is the importance of continuous assessment to improving student knowledge and to influencing performance in National Form Four examinations. We investigate these issues and report the results in section five.

2.5 EXISTENCE OF PRIVATE TUTORING OR SHADOW EDUCATION SYSTEM IN TANZANIA

Private tutoring or private tuition is a phenomenon, which is practiced in a number of countries, developed and developing alike. It has posed quite some challenges to educational planners with a reflection whether it is a good or a bad thing (Bray 1999). Private tuition is too widespread to be ignored.

In Tanzania private tutoring is practiced at both primary and secondary school levels, although, officially, the responsible Ministry of Education and Culture had officially discouraged the practice. The scope of private tuition is very wide in terms of scale, cost and payments, subjects covered, geographical spread, factors behind its “illegal” sustainability and its influence in performance of pupils or students. Given such complexities this study analysed only one aspect, that of influence on performance. Other components could form areas of further research. The results of our analysis are reported in section five.

3.0 INDICATORS OF PRIMARY AND SECONDARY EDUCATION PERFORMANCE IN TANZANIA

3.1 ENROLMENT

While trends in enrolment at primary level show an upward trend between 1970 and 2000 declines are experienced from the rates achieved in 1980. The GER for secondary level has been rising considerably since 1985. See Table 6.

Table 6: Enrolment Trends in Primary and Secondary Schools in Tanzania 1970-2000 (Selected Years)

	Primary		Secondary (Lower)
	GER	NER	GER
1970	39.1	27.0	n.a.
1975	54.1	47.1	n.a.
1980	98.0	68.0	n.a.
1985	85.5	67.8	1.3
1990	73.5	54.5	6.9
1995	77.6	55.5	7.0
2000	77.7	59.5	7.5

Key: GER = Gross Enrolment Rate; NER = Net Enrolment Rate

Note: NER for lower secondary is not available

Source: URT (*various*)

For primary education, highest rate was achieved in 1980 (GER almost 100 per cent). Declines were experienced up to 1990 before picking marginally between 1990 and 2000.

Gender Parity

Gender parity has almost been achieved at primary level, while at lower secondary, it has improved over the past five years. Table 7 shows gender-wise performance in enrolment.

Table 7: Gender Parity Indices at Primary and Secondary Education in Tanzania 1995-2000

	Primary		Lower Secondary	
	GER Parity	F/M	F/M	GER parity
1995	98.1	97.6	83.6	85.3
1996	98.2	97.9	88.1	84.2
1997	97.5	98.5	82.0	85.9
1998	102.8	98.8	90.9	95.8
1999	103.5	99.5	89.9	94.7
2000	97.7	98.1	89.2	91.2

Key: F/M= Female/Male ratio

Source: Computed from URT (various)

The ratio of females to males is almost at par at primary level (98.1 per cent in 2000) while at lower secondary it was 89.2 per cent in 2000. The GER parity on the other hand shows a more bright performance for girls at primary level during 1998-1999. What this means is that the chances of girls in their own cohort has improved considerably.

Regional Disparities

Regional disparities are quite pronounced. Gross primary enrolment varies quite considerably across regions. Total gross enrolment ranges from 63per cent to 100per cent; GER for boys from 65 to 99 per cent and GER for girls from 60 to 100 per cent. The most deprived regions are Dodoma, Kagera, Kigoma, Rukwa and Tabora (PRSP p. 12). The five better-off regions are Dar es Salaam, Iringa, Kilimanjaro, Mara and Morogoro (Cooksey et al 1998).

3.2 PERFORMANCE IN EXAMINATIONS

Males perform better than girls at both primary and secondary levels; there are wide disparities in performance across regions.

(a) Primary Level

The most recent comprehensive results for Primary School Leaving Examination (PSLE) those for 1999 show a wide range of passing rates from 35.43 per cent for Dar es Salaam (42.35 per cent male, 29.03 per cent female) to 11.81 per cent for Shinganya (17.73 per cent male, 6.01 per cent female). The best four regions were Dar es Salaam, Mara, Iringa, Kilimanjaro and Mbeya (in that order) while the bottom four, from last are Shinyanga, Tabora, Ruvuma, Kagera and Mtwara (URT 2000).

(b) Secondary Level

Table 8 shows performance at lower secondary.

Table 8: Performance at “O” Level Exams: 1996-2000

	% Passed		% Division I	
	Boys*	Girls**	Boys	Girls
1996	92.06	79.48	6.88	3.26
1997	95.55	82.70	24.40	6.52
1998	93.94	82.72	25.39	6.27
1999	93.46	85.66	23.89	5.18
2000	95.62	86.00	24.22	5.57

Key: * *Boys only schools*; ** *Girls only schools*

Source: *MOEC (various)*

The picture shown in Table 8 does not change at divisions II to III. At division IV the percentage of females is very high compared to males. At failure rate (division zero) the proportion of females is very high (20.52 per cent in 1996; 17.3 per cent in 1997; 17.28 per cent in 1998 and 14.43 per cent in 1999 and 14.0 per cent in 2000 compared to male figures of 7.94 per cent; 4.45 per cent; 6.06 per cent, 6.54 per cent and 4.38 per cent respectively).

3.3 THE POVERTY-EDUCATION (ENROLMENT) NEXUS

The poor are more likely to be less educated. The deprivation matrix (PRSP pp. 12-13) shows some association between income and primary school enrolment. The most deprived regions in terms of per capita income are Dodoma, Kagera, Kigoma and Kilimanjaro. Two of the regions, Dodoma and Kigoma are among the most deprived five in terms of primary school enrolment (total GER, female GER as well as male GER). A question, however, remains on why Kagera and Kilimanjaro behave differently suggesting that either one interprets the regional averages on per capita income with caution, or one carries an in-dept survey to uncover the issues.

4.0 DETERMINANTS OF ENROLMENT AND PERFORMANCE IN PRIMARY AND SECONDARY SCHOOLS: EVIDENCE FROM LITERATURE

4.1 EVIDENCE FROM OTHER COUNTRIES

4.1.1 *On Enrolment*

What keeps children out of school?

Enrolment is adversely affected when children do not enrol or pupils leave school

after enrolment. The causes of both can be categorised into supply factors, demand factors and other factors e.g. socio-cultural. Supply factors include unavailability of school, difficulty of access to school and unavailability of teachers.

Demand factors include undesirability of household for education (especially of females), household inability to meet costs of schooling, children/pupils seeking work to help household and the child/pupil having no desire for education.

Demand factors exert a great influence on enrolment. In a study of Yemen, for example, Mbelle (2002) found that demand factors explained 62.7 per cent of non-enrolment and 75.3 per cent of leaving school.

(a) Primary Level

A decision to invest in education is guided by cost-benefit considerations. At the macro level the question whether education contributes to economic growth, and how this contribution compares with the contribution of physical capital becomes of paramount importance. At the household level private costs and benefits form the basis of decision-making (Psacharopoulos and Woodhall (1985). Given the high external benefits of primary education (lower transaction costs between individuals, improved health status, improved good governance, adoption and diffusion of new techniques, etc.) there are strong arguments for government intervention due to failures in the market for education (Appleton 2001). These include possibility of under-provision since social returns exceed private returns; unequal access given weak systems for redistributing income through tax and benefit systems especially in LDCs, capital market and insurance market failures, asymmetric information and intra-household principal-agent problems e.g. pro-son bias. Further the state owns much of the primary school infrastructure especially in developing countries (e.g. as high as 99 per cent in Tanzania). The most powerful instrument for effecting enrolment is the budget (government spending). (UNRISD 2000).

Evidence from many developing countries, where levels of income are low suggest that where government cuts in primary spending were effected, enrolment suffered. Moura Castro and Alfthan in Samoff, (1994 p.206) point out that primary education “has the politically weakest constituencies and the weakest bureaucracies in most countries.” It requires a long-standing and serious commitment of governments to resist such cuts in times of austerity. In countries like Brazil, Costa Rica, Senegal cuts were not resisted. The authors point out to countries like Hungary, which resisted such cuts.

Incomes of households have also been singled out as an important factor in determining enrolment (ILO/UNCTAD 2001). Several Latin America countries e.g. Brazil, Mexico innovated a cash transfer (minimum income) approach to

simultaneously achieve improvement in the educational attainment of children in poor families and poverty reduction. The initiative, known as Minimum Income for School Attendance (MISA) compensated in cash grant the family for the direct and opportunity cost of sending their children to school on condition that the school-age children attended school for a specified number of days per month (ILO/UNCTAD, *Ibid.*). The overall result was increased enrolment.

(b) Secondary Level

At this level of education, private benefits become more pronounced and the public–private mix is almost equal in many countries. However, public spending decline in some countries like Costa Rica, “sacrificed politically, enrolment in secondary education which declined sharply” Moura Castro and Alfhan in Samof (1994) p. 207.

(c) Factors Explaining Low Enrolment of Girls

Though in many countries in the developing world gender parity has almost been achieved at the primary level (ILO/UNCTAD 20012), the situation is slightly different at the secondary level. In a sample of 24 African LDCs only three were found to be on the right path to achieving parity in 2005 (ILO/UNCTAD, *ibid.*, UNESCO, 2001, the African (2001).

At the primary and secondary levels considerations of cost and income guide the decision to send a child to school. More even so the decision to send a boy or female child to school. Wamahiu (in Murphy and Gipps, 1996) point out that the pedagogy of difference is discriminative, inequitable and undesirable (p. 47). The author argues that it is based on socio-cultural differences between males and females. It can be deconstructed (except of course for the biological differences).

ILO/UNCTAD (2001) point out that the distribution of direct and opportunity costs is unequal by gender and by household poverty. The loss of a girl’s labour at the household in many African non-pastoral households, is more keenly felt than that of boys. Equally the direct costs of school attendance are often greater for girls. Expected benefits also differ by gender with households expecting more from the schooling of their sons than of daughters. Daughters are thus less likely to be enrolled (p. 15).

4.1.2 On Performance (at both Primary and Secondary Levels)

Granting an equal opportunity to all school-age children to attend school is only the first step. “Once pupils find seats in a classroom, they need quality instruction, otherwise there will be little motivation to persist in school” (ICFE 200, p. 8). Unsatisfactory quality is one of the factors leading to parents shifting their children from one school to the other. The flight is particularly experienced among children of middle class incomes who begun to be affected by migration

back to public schools or from schools outside the country to home country. Parents also resort to private tuition to compensate for low quality.

The quality of instructions determines student achievement. There are four commonly applied measures of student achievement: school-based assessment, public examinations, national assessment and international assessments.

School-based assessments measure performance against curricular goals. They are done on a continuous basis and offer immediate feedback. In this respect they provide a more actual picture than standardised national tests. Public examinations are intended for selecting pupils/students to next level of education, certifying graduates for the job market and fostering accountability for school and school performance. Selection, however is the most important (ICFE, 2000). In developing countries, public examinations are more important given the limited alternative opportunities for advancement. National assessments are intended to inform policy and take the form of tests to a sample of pupils, questionnaires etc. They are not very common in Africa though they are common practice in developed economies and in Latin America. International assessments compare results of examining samples of students from many different countries.

Chinapah et al (2000) assessed the relative importance of the factors that influence performance in eleven African countries using path analysis with LISREL software programme. The statistical technique, path analysis, allows for comparison of direct, indirect and total effects of variables while the LISREL model has two components: one, which specifies the relationships (measurement model) and the second part the structural model.

The analysed factors included the following:

1. Learner background (gender, age, home language, pre-school attendance, repetition).
2. Home background (meals, both parents in the home etc.).
3. Home learning support (help with homework, parents, education etc.).
4. Teacher background (age, gender, experience, qualification etc.).
5. Teaching conditions (classroom furniture, learning materials, etc.).
6. Teachers' work environment and activities (availability etc.).
7. School head background (gender, qualification, experiences etc.).
8. School characteristics (facilities, size, safety, location, ownership etc.).

Results of the global model revealed the following order of ranking (degree of importance) from the most important factors (strength of total path coefficient and its frequency):

1. Socio-economic status.

2. Access to school.
3. Attitude to school and to the teacher.
4. Teacher characteristics.
5. Home learning environment.
6. School learning environment.
7. Classroom characteristics.
8. School safety and security.
9. Assessment practices.
10. Learner characteristics.
11. Availability of chalkboards.

The main conclusion drawn by the authors is that determinants of performance differ across localities or countries. This has implications on interventions: whether they should be common or specific.

ICFE (2000) categorises the factors into contextual and school-related. Contextual factors relate to the context in which schools and individual students function (e.g. school location-rural or urban, ownership of school-public or private, family size, socio-economic status and educational attainment of parents). School-related factors include qualifications of teachers, distance from school to where pupils live, availability of textbooks and other educational materials, length of school year and day, homework policies, etc. It is further pointed out that educational administrators and policy-makers have little control over contextual factors but have considerable influence over school-related factors. ICFE (ibid.) points out that while both categories of factors are present in all countries, generally contextual factors explain more achievement differentials in developed countries while school-related factors are relatively more important determinants in developing countries.

4.1.3 IMPACT OF EXTERNAL FACTORS

Apart from the influences of contextual and school-related factors, which can be categorised as domestic, external factors also play an important role. Frequently sighted factors include external indebtedness and HIV/AIDS. Vandemoortele et al (in Development, 2000) point out that “one of the reasons why governments under- invest in education is the high burden of debt. Debt payments absorb 30 per cent or more of the national budget, with several countries spending more on debt servicing than on basic social services. They point out that to spend more on debt... while children... lack access to basic education is not only morally wrong, it is also economically inefficient” p. 17. As the World Council of Churches (2001) puts it “it is a violation of fundamental

human rights when states fail to meet the basic needs of their people because scarce resources are sacrificed to (external) debt payments” p. 19. Mbelle (2002) shows the multiple of external debt servicing to education spending to have ranged between 1.7 and 4.6 in Tanzania in the 1990s.

Recent evidence on the impact of HIV/AIDS points to the adverse impact on school enrolment, drop out rates, teacher availability etc. A high rate of prevalence among adults weakens the ability to support children in schooling (UNAIDS/ECA, 2000; Mbelle, 2001b).

4.1.4 Gender Disparities in Performance

While generally in many developing countries boys outwit girls in terms of access, retention rates etc, gender differences vary widely across countries as well as within same country (depending on subject matter, grade level etc) ICEF (2000). Many survey results show that generally girls outperform boys at lower grades usually excelling in literacy while boys outperform girls in numeracy. See also Maliyamkono and Ogbu (1999).

A number of explanations have been offered to explain the relative low performance of girls. They include cultural attitudes towards the education of girls, girls and women “required” to work more inside or outside the home, early marriage and pregnancy and less ambitious expectations by parents etc. (ICFE 2000). Though extra domestic chores is cited, it still puzzles to see that even girls in boarding schools where such activities are absent, are still outperformed by boys.

Martin (in Murphy and Gipps, 1996) talks of a girl-friendly pedagogy and girl-hostile boys in school as factors that influence performance of girls positively and negatively respectively.

4.2 THE UNFINISHED AGENDA IN PRIMARY AND SECONDARY EDUCATION: PERSISTENCE OF A STUBBORN “CRISIS”

Signs of a crisis in education were detected long ago in Sekwao (1986). The findings of a survey of studies on education in Tanzania covering issues related to poor performance are reported in Table 9. From this table one can conclude that the situation in both primary and secondary school levels education has not changed significantly for the better.

Table 9: Factors Affecting Enrolment and Performance in Education in Tanzania (1980s and 1990s)

	Constraints	
	1980s	1990s
Primary	<ul style="list-style-type: none"> “ Shortage of teachers “ Teachers’ incompetence “ Lack of teaching materials and aid “ Poor family background (low income, low education of parents, broken families). 	<ul style="list-style-type: none"> “ Shortage of teachers “ Teachers’ incompetence “ HIV/AIDS “ Insufficient classrooms/schools “ Limited pre-primary schools “ Limited supply of books “ Financial constraints “ Poor inspection services “ High drop out rate “ High repetition rate “ Lack of incentives to teachers “ Poor family background.
Secondary	<ul style="list-style-type: none"> “ Shortage of schools “ Teachers’ incompetence “ Poor teaching facilities. 	<ul style="list-style-type: none"> “ Shortage of qualified teachers “ Financial constraints “ Shortage of classrooms/schools “ Poor equipped library and laboratory facilities.

Source: *Compiled from various studies*

4.2.1 *Situation after 2000*

URT (2001a) points out the problems facing primary and secondary education to be low basic education enrolment, high drop out rates, poor learning achievement, low pass rate (e.g. in primary 7,19.4 per cent passed in 1999 and 22 per cent in 2000), inefficient use of resources, insufficient financial resources to meet education system needs, few girls in secondary schools, etc. By and large these problems are similar to those experienced in the 1980s and 1990s.

4.3 HYPOTHESES

From the survey of literature done we hypothesize performance to be more a function of school related factors than contextual factors.

5.0 AN EMPIRICAL ANALYSIS OF THE DETERMINANTS OF ENROLMENT, PERFORMANCE, AND POVERTY (ACCESS) IN PRIMARY AND SECONDARY EDUCATION IN TANZANIA

5.1 METHODOLOGY FOR ANALYSING THE DETERMINANTS OF ENROLMENT AND PERFORMANCE

(a) Commonly Applied Methods

Various studies have used different methods to analyse issues of enrolment and performance in education. The methods range from econometric estimations (e.g. Cooksey et al 1998, Blundel et al 1999) through correlation analysis to simple descriptive statistics. The type of data gathered determines to a large extent the method chosen. This study used correlation analysis and descriptive statistics.

(b) Data Sources

The analysis is based on primary data gathered. Secondary sources supplemented where the need arose.

(c) Sampling Procedures

From previous studies and reports on performance in education across regions in Tanzania the regions were divided into three broad categories: best, average and poor performers. From this purposeful sampling, regions were then selected randomly from the three broad groups. The second level, once the regions were picked was a repeated procedure, to draw a list of the schools in the particular regions covering different important structures (form of ownership), location, boarding, day). Schools were then randomly selected from these clusters. The final procedure was to select randomly the pupils (primary) and students (secondary) who were then subjected to the prepared questionnaires (one type for primary level, another for secondary level).

A tracer study was also made on leavers, based on information obtained from schools, fellow students, etc. Further, a sample of form IV students covered in the 1999 survey was traced to "O" level performance in year 2000 National Examinations released by the national Examinations Council.

(d) Sample Size

The sample sizes were as follows:

- (i) Six regions, Dar es Salaam and Mara representing group I i.e. best performers; Morogoro and Mwanza and group II, i.e. average performances and Coast and Kagera representing the third group of poor performers.
- (ii) 207 primary school pupils drawn from public and private schools

(iii) 637 secondary school students.

(iv) 108 secondary school students traced to year 2000 “O” level examination performance.

5.2 RESULTS: ENROLMENT, PERFORMANCE, GENDER AND POVERTY ISSUES

5.2.1 *Primary Level*

(a) **Sample Characteristics**

(i) Gender

51.2 per cent were females and 48.8 per cent males.

(ii) Custody

60 per cent of the pupils were in the custody of both parents (father and mother) followed by mother only (15 per cent) and father only (10 per cent). The rest were in the custody of other relatives (15 per cent).

(iii) Parents' Occupation

32 per cent of fathers worked in the civil service followed by business (trading) (27 per cent), self employment 17 per cent, employment in the private sector 12 per cent, peasant (6 per cent) and other 6 per cent).

With respect to the occupation of the mothers 25 per cent were businesswomen, (traders) followed by employment in the civil service, and “other”, 18 per cent each, housewife 17 per cent self employment 10 per cent, peasant 9 per cent, employment in private sector institution, 3 per cent.

(iv) Occupation of custodians

82 per cent of the custodians fell in the group of unidentified occupation. 5 per cent each were in the civil service and business, 4 per cent, peasants and 2 per cent each in either self-employment or “housewives”.

(v) Pre-primary education

56 per cent of the pupils had attended private pre-schooling compared to 19 per cent in public pre-schools and 25 per cent none.

(vi) Shifting from one school to another.

67 per cent did not move from other schools (to current one) while 33 per cent did.

(vii) Distance to school

Maximum 3 km, mean being 2.5 kms. On average girls traverse longer distances than boys (proportion living 2-3 kms away from school).

(b) Determinants of Performance

School-related factors (e.g. proportion of grade A teachers in the total school teacher force, pupil-teacher ratio) explain performance at primary level.

5.2.2 Secondary Level

(a) Sample Characteristics

(i) Gender

67.5 per cent were male and 32.5 per cent female.

(ii) Type of school by ownership

60 per cent were public schools and 40 per cent private ones

(iii) Custody

54 per cent of the students were in the custody of both parents followed by mother only (14.1 per cent), brother (6.7 per cent), father only 5.5 per cent). The group of other categories of custody, nine in number had a score of less than 3 per cent for each.

(iv) Occupation of parents

The main source of income for the father was agriculture (peasant/farmer), 33.6 per cent; civil service 28.1 per cent; business (trading) 12.9 per cent; private sector employment 5.9 per cent; self-employment 3.4 per cent; and “others” 16.1 per cent. With regard to mothers, 34.1 per cent were peasants/farmers, followed by housewives (19.3 per cent), employment in the civil service 19.1 per cent, business women (traders), 12 per cent, 10.1 per cent, self-employment 3.3 per cent and private sector employment 2.1 per cent.

(v) Joining secondary school

12.4 per cent of the students revealed a lapse of time between completing primary school and joining secondary school (9.2 per cent a lapse of one year, 1.7 per cent, two years).

(vi) Shifting from one school to another

68.5 per cent did not move after joining Form I at the particular school, while 22.2 per cent did mainly from public to private schools (9.3 per cent did not respond to the question).

(b) Performance

Performance by school ownership

An analysis of 1999 and year 2000 “O” level results was done. The findings were:

- (i) Private schools (which includes religious schools) perform better than government schools. Of the best 30 schools, in year 2000, 23 (76.7 per cent) were private schools.
- (ii) Best performing public schools in year 2000 were those designated as special schools: with ranks out of 30 as: Ilboru (3), Mzumbe (7), Bwiru Boys (18), Iyunga (24), Kilakala (26), Tabora Boys (27) and Msalato (30).
- (iii) Consistency of performance is higher in private schools than in public schools. Five of the 7 public schools in the group of best 30 schools in 2000 were not among the 30 best in 1999.
- (iv) Overall consistency in performance is low at 53.3 per cent (i.e. only 53.3 per cent of the best 30 schools in year 2000 were also among the best 30 in 1999).
- (v) Christian-denominated private schools perform well
50 per cent of the best 30 schools in 2000 “O” level results were Christian-denominated (no other denomination was among the best 30). In 1999 results 46.7 per cent of same schools were among 30 best.

We need to note here that in many private schools a process of weeding out students who perform poorly is practiced. Good performance by private schools should not be a surprise since those who sit for the form four examinations are those that survived the process from their entry into Form I.

(c) The Determinants of Performance (Tracer Study)

In order to determine the factors that influence performance 108 secondary school students covered in the 1999 survey were traced to “O” level performance in 2000 national form four examinations. The results are as follows for 82 males (76 per cent) and 26 females (24 per cent).

- (i) Performance by gender and division.

Table 10: Results: “O” Level Performance by Gender in Surveyed Secondary Schools in Tanzania (year 2000)

		Female	Male	Total
Division	I	0 (0.0 %)	11 (13.4 %)	11 (10.2 %)
	II	0 (0.0 %)	11(13.4 %)	11 (10.2 %)
	III	3 (11.5 %)	10 (12.2 %)	13 (12 %)
	IV	21(80. %)	37 (45.1 %)	58 (53. %)
	0	2(7.7 %)	13 (15.9 %)	15 (13.9 %)
Total		26 (100.0 %)	82 (100.0 %)	108 (100 %)

Source: *Computed from tracer study*

As can be seen in Table 10 females perform poorly compared to males. At highest divisions (1 and 2) there was no female. The poor performance of females is both in terms of comparison with males in absolute numbers and within their group (percentages computed in the columns representing female and male).

Table 11: Results: Performance by Division and Type of Custody at “O” Level in Tanzania, 2000

		Both Parents	Father only	Mother only	Other
Division	I	8 (14.1 %)	0 (0.0 %)	3 (10.7 %)	3 (15.7 %)
	II	7 (12.2 %)	0 (0.0 %)	1 (3.6 %)	3 (15.7 %)
	III	5 (8.8 %)	2 (50.0 %)	2 (7.1 %)	4 (21.1 %)
	IV	37 (64.9 %)	2 (50.0 %).	10 (35.7 %)	8 (42.2 %)
	0	0 (0.0 %)	0(0.0 %)	12 (42.9 %)	1 (5.3 %)

Source: *Computed from tracer study*

Students who stay with both parents were most represented in divisions I and II in terms of absolute numbers, though as a group (proportion among group) those who stay under the custody of “other” group performed better (26.3 per cent under custody of both parents against 31.4 under custody of “other”).

Table 12: Results: Performance by Division and Father’s Occupation at “O” Level in Tanzania: 2000

		Farmers	Civil Servants	Private Sector	Traders
Division	I	5(14.7%)	1 (3.1 %)	9 (52.9 %)	4 (20.0 %)
	II	6(17.6%)	2 (6. %)	0 (0.0 %)	1 (5.0 %)
	III	4(11.8 %)	2 (6.2 %)	3 (17.6 %)	2 (10.0 %)
	IV	16(47.%)	21 (65.7 %)	4 (23.6 %)	9 (45.0 %)
	0	3 (8.8 %)	6 (18.8 %)	1 (5.9 %)	4 (20.0 %)

Source: *Computed from tracer study*

In terms of numbers, children of farmers are more represented at higher divisions (1 and 2) followed by children of business. However, in comparison within own group children of businessmen perform better (52.9 per cent against 32.3 per cent).

Table 13: Results: Performance by Division and Mother’s Occupations at “O” Level in Tanzania, 2000

		Farmer	House wife	Civil Servant	Private Sector	Self	Business
Division	I	5(14.7)	2(12.5 %)	2(11.1 %)	0(0.0 %)	0(0 %)	2(9.1 %)
	II	5(14.7 %)	2(12. %)	2(11.1 %)	0(0.0 %)	0(0 %)	1(4.5 %)
	III	4(11.8 %)	0(0.0 %)	0(0.0 %)	1(33.3 %)	2(66.7 %)	3(13.6 %)
	IV	16(47.0 %)	10(62.5 %)	12(66.7 %)	2(66.7 %)	1(33.3 %)	12(54.5 %)
	0	4(11.8 %)	2(12.5 %)	2(11.1 %)	0(0.0 %)	0(0. %)	4(18.3 %)

Source: *Computed from tracer study*

Students from peasant mothers are more represented at highest divisions (in terms of both numbers and proportion within their own group).

Table 14: Results: Performance by Division and Shifting Schools at “O” Level in Tanzania, 2000

Division	Shifted	Not shifted	Total
I	0 (0.0 %)	11 (19.6 %)	11 (11 %)
II	3 (9.7 %)	8 (14.3 %)	11 (11 %)
III	3 (9.7 %)	8 (14.3 %)	11 (11 %)
IV	25 (80.6 %)	29 (51.8 %)	54 (54 %)
Total	31 (100 %)	56 (100 %)	87 (100 %)

Source: *Computed from tracer study*

Eight students did not respond to the question. These results show that shifting from one school to another affects performance adversely. Best performers (in highest divisions) in terms of both absolute numbers though not within own group are those that did not move.

Table 15: Results: Performance by Division and Type of School at “O” Level in Tanzania, 2000

Division	Boarding	Day
I	11 (17.1 %)	0 (0.0 %)
II	11 (17.1 %)	0 (0.0 %)
III	9 (14.1 %)	4 (68.2 %)
IV	28 (43.8 %)	30 (68.2 %)
0	5 (7.9 %)	10 (22.7 %)

Source: *Computed from tracer study*

In terms of numbers, students who are boarders are most represented in highest divisions (1 and 2) compared to day students though within own group lower divisions had a higher proportion.

Table 16: Results: Performance by Division and Location of School at “O” Level in Tanzania, 2000

Division	Urban	“Rural”
I	0 (0.0 %)	11 (15.7 %)
II	2 (5.3 %)	9 (12.9 %)
III	5 (13.2 %)	8 (11.4 %)
IV	27 (71.0 %)	31 (44.3 %)
0	4 (10.5 %)	11 (15.7 %)

Source: *Computed from tracer study*

Students from schools in “rural” setting i.e. away from cities and towns are most represented in highest divisions in terms of numbers.

Table 17: Results: Performance by Division and Type of Ownership of School “O” Level in Tanzania, 2000

Division	Public	Private
I	0 (0.0 %)	11 (26.1 %)
II	5 (7.6 %)	6 (14.3 %)
III	7 (10.6 %)	6 (14.3 %)
IV	45 (68.2 %)	13 (31.0 %)
0	9 (13.6 %)	6 (14.3 %)

Source: *Computed from tracer study*

Students in private schools students are most represented at highest divisions (1 and 2) compared to those in public schools in terms of numbers though not as proportion within group.

Analysing using correlations matrices:

- (i) Gender versus school rank and division (1 = male)
 - Rank 0.2389
 - Division 0.4709**
- (ii) Custody versus school rank and division (1 = both parents)
 - Rank 0.0139
 - Division -0.576
- (iii) Father’s occupation versus school rank and division
 - Rank 0.1287
 - Division 0.0572
- (iv) Mothers’ occupation versus school rank and division
 - Rank 0.1256
 - Division 0.1317
- (v) Shifting from schools versus school rank and division
 - Rank -0.5130**
 - Division -0.3040*
- (vi) Location versus school rank and division (1 = “rural”)
 - Rank 0.2784*
 - Division 0.2874*
- (vii) Type of residence versus school rank and division (1 = boarding)
 - Rank 0.5498**
 - Division 0.4908**

(viii) Type of ownership versus school rank and division (1 = private)

Rank 0.4185**

Division 0.43074**

(ix) Student-Teacher ratios versus school rank and division

Rank 0.0173

Division -0.0488

(x) Lapse in joining Form I versus school rank and division

Rank 0.1342

Division -0.0488

Key: * = Significant at 0.01

** = Significant at 0.001.

Characteristics (i) – iv) and (x) fall in the group contextual factors while the rest (v) – (ix) fall under school-related factors. School-related features explain performance more than contextual factors.

Interpretation of Results

The discussion is based on parameters, which show significance.

(a) Gender

Male students improve school standing in higher divisions

(b) Shifting from schools has a negative impact on both division and ranking of schools

(c) Location

Rural location (as one moves from urban) improves both division and school rank.

(d) Boarding improves both rank and division

(e) Private ownership of schools improves both rank and division.

5.3 DOES TUITION MATTER?

As a follow-up to the issue of performance, the researchers investigated the influence of private tutoring on both continuous assessment grade and performance in final examination at both primary level (standard seven examinations) and at secondary level (form four examinations). The results are reported in Table 18.

Table 18: Results: Importance of Tuition to Continuous Assessment and Examination Results in Primary and Secondary Schools in Tanzania (2000): Correlations Analysis

PRIMARY

	Cont. Ass.	Selected?	Attendance Tuition	School Type
Continuous assessment	1.000	.811**	.513**	-.319**
Selected into F1?	.811**	1.00	.514**	n.c.
Attended Tuition?	.513**	.514**	1.00	.207
Type of school selected	-.319**	n.c.	.207	1.00

SECONDARY

	Cont. Ass.	Without Tuition	National Form IV Results
Continuous assessment	1.00	.397*	.720**
Without tuition	.397*	1.00	.277
National Form IV Results	.720**	.277	1.000

Key:

- * Pearson correlations, significance at 0.05 level (2-tailed)
- ** Pearson Correlation, significant at 0.01 level (2-tailed).
- n.c. = could not be computed because at least one of the variables is constant.

Interpretation of Results

At primary level tuition is a very significant determinant of final continuous assessment grade and selection into form 1 (both positive and significant at the 0.01 levels. The type of school selected into (form 1, whether special or ordinary) is not significantly influenced by tuition. A unique finding is that selection into special schools is negatively related to continuous assessment (and significant at 0.01 level). In other words, those who had been selected into special schools in year 2000 had relatively low continuous assessment grades.

At secondary level tuition influences final continuous assessment grade significantly (at 0.05 level) though it is not significant in determining national form four results. It is the continuous assessment grade that is positively and significantly correlated with national form four results.

5.4 OTHER FINDINGS

- (a) Performance versus opportunity (for girls): our analysis also covered the issue of external efficiency i.e. balance between social costs and social benefits – how well schools prepare pupils and students for their roles in society (Psacharopoulos and Woodhall, 1985). The indicator used in such measurement is employment prospects.

We inquired on the placement of graduates by gender. The findings revealed that on average for every girl graduate who secures placement there are two males with placements. This means that females are disadvantaged at both levels: in school as well as outside school where opportunities for them are also limited.

- (b) Education Practice and Prospects of Elitism

The socio-economic status of parents was found to influence learning at three levels:

- (i) Pre-primary education, with 56 per cent attending private pre-schools, 19 per cent public pre-schools and 25 per cent none. The main factor explaining the latter two situations was financial inability of parents or guardians. Private pre-schools are more expensive.
- (ii) Choice of private schools at both primary and secondary levels.

Pupils/students of well-to-do family backgrounds were more represented in private schools. It should be pointed out here that some private primary and secondary schools charge for tuition to the level charged at Universities such as Dar es Salaam (about Tshs. 1 million or approximately US\$ 1000 per annum).

- (iii) Ability to pay for private tuition

In our sample 35 per cent of the pupils did not attend private tuition of whom 10 per cent were girls and 25 per cent boys. When probed for the reason of not doing so financial inability of parents or guardians was pointed out.

6.0 STRATEGIC OPTIONS FOR SUSTAINING ACCESS, QUALITY, EQUITY AND EFFICIENCY

6.1 STRATEGIC OPTIONS

6.1.1 Strong Commitment by Government to Increase Educational Capacity and Improve Quality

As pointed out in section two the government owns much of the school infrastructure: 99.4 per cent of primary schools and 56.4 per cent of secondary schools. It is thus the key player.

Tanzania is below the average for Sub-Saharan Africa in terms of gross enrolment at both primary level (67.7 per cent versus 74 per cent) and secondary level (7.2 per cent versus 25 per cent) (URT 2002f). Expanding access is thus of primary importance.

(a) Increasing Capacity

The main instrument in increasing capacity is use of government resources. The government needs to devote more resources to education from current 2.9 per cent of GDP. There are two ways of achieving this: through greater generation of revenue (through increased GDP growth rate and improved tax efforts and through budget restructuring in favour of education spending.

The expenditure component that has to be targeted is development expenditure which is very low e.g. in financial year 2000/01 was only Tshs. 9 billion (3.7 per cent) out of total education spending of Tshs. 246 billion. In order to reach at least the enrolment rate average for sub-Saharan Africa capital spending has to increase by about 10 per cent for primary level and close to being quadrupled at secondary level. With year 2000/01 as base, for example, this would translate to Tshs. 5.5 billion (0.07 per cent of GDP) for primary level and Tshs. 10.5 billion (0.14 per cent of GDP) for secondary level (at current prices). This is equal to an extra allocation of only 0.007 per cent of GDP to primary level and 0.11 per cent of GDP to secondary level. These are not unrealistic targets. This can be achieved in the medium term.

(b) Improving Quality through Restructuring Recurrent Spending

Inputs that improve quality of schooling include desired availability of textbooks, desks, class density etc. As shown in Table 2, in the past, much of recurrent spending at both primary and secondary levels was devoted to wages leaving very little for aspects that improve quality. However efforts are now directed at allocating more resources to quality improvement. A more radical approach would be to have another structure for wages so that these costs don't crowd out expenditures on quality-improving lines. Teachers' salaries could be recategorised as a line within the central government system.

6.1.2 Increasing Overall Level of Demand for Education

Demand for education by individuals and households needs to be sustained at high level if access is to improve. This can be achieved through empowering individuals and households economically. Cash transfers of the MISA initiative type are not sustainable in the long run. Maintaining macroeconomic stability and pursuing pro-poor expenditure are key in reducing the general level of poverty in the country and have the greatest potential of raising the level of demand for education at both individual and household levels. An added advantage of macro

economic stability is that it increases external inflows (donor finance, HIPC relief etc) which can be directed to education services delivery. These can be done in the medium to long term.

6.1.3 Looking Beyond Primary Education

FGG (2000) points out the deficiency of primary education in meeting modern era development challenges. The report calls for universal secondary education in developing countries. As pointed above the additional investments required are not high in the medium term (about 0.11 per cent of GDP). With a GER of 7 per cent a phased strategy should be made to reach a GER of 100 per cent in the long run. If 0.11 per cent of GDP can be devoted each year for increasing capacity at secondary level 100per cent GER will be reached with only 2 per cent of GDP devoted, and this will have been achieved within a period of only 14 years!! A more educated citizen improves the demand for education and sustainability of the education system.

6.1.4 Increasing Female Access

The importance of female education is well documented. The government needs to correct for gender in its allocation of resources to education. See Galabawa and Mbelle (2002) for details.

6.1.5 Increasing and Sustaining Partnerships

Given its limited resource base, the government needs to nurture cultured partnerships with the private sector as well as development partners. The local private sector is especially key in raising the level of demand for education. Its growing role at the secondary level needs to be supported with incentives such as tax incentives for investments in education. In this way sustainability can be guaranteed.

6.1.6 Improving Efficiency

Low enrolment rates explain the internal inefficiency of the education system at both primary and secondary levels (see URT 2002f, Galabawa and Mbelle 2002). The need to expand access is vital. Efficiency can be gained in the medium to long term through systematic increase in enrolment and checking wastage (drop-out, repetition etc). This can be achieved through addressing factors that cause this – such as those discussed in section 3.

7.0 CONCLUDING REMARKS

7.1 POLICY IMPLICATIONS

The analysis has revealed a number of issues, which are of policy-nature. First is the issue of investing in education mainly through public spending. Government

resources committed to education are low, in terms of both recurrent and capital expenditures. While supplementary sources from development partners have eased the situation especially in 2002, the sustainability of such sources is not guaranteed in the medium and long term. It is thus important to have in place mechanisms, which mobilise extra-budgetary resources. This can be achieved through more involvement of the non-government sector and improvement in incomes of the people. The non-government sector should be enticed into investing in education through attractive fiscal incentives.

Growth of the economy is an important aspect in education provision. On the one hand it guarantees mobilisation of resources for funding education expenditures while on the other hand it creates employment opportunities, which raise the demand for education from the perspective of individuals and households. Tanzania thus needs to guarantee high growth rate of the economy in both the medium and long term.

Third is the issue of educating women. Apart from externalities of educating women being higher than those for males, mobilisation of this section of population is important for two reasons: child development and the fact that there has been greater initial disparity. Policy makers thus need to reallocate more resources for women education. As Galabawa and Mbelle (2002) point out, resource allocations need to be corrected for gender disparities, the correction factor found to be lower for primary level and higher for secondary level.

7.2 AREAS FOR FURTHER RESEARCH

The results on performance have indicated disparities by gender and school type. Further research into these areas will shed more light. The analysis of the effect of private tuition covered a limited number of variables. A wider coverage is needed. Lastly, the implementation of circulars by the Ministry of Education and Culture, to take effect in 2002 need to be assessed in terms of their potential impacts especially for female education.

SELECTED REFERENCES

- Appleton, S. "User Fees, Expenditure Restructuring and Voucher System in Education" in Mwabu, G., C. Ugaz and G. White (eds) *Social Provision in Low-Income Countries: New Patterns and Emerging Trends*, Oxford: Oxford University Press, 2000.
- Bennell, P. and D. Furlong. "Has Jomtien Made Any Difference? Trends in Donor Funding for Education and Basic Education since the late 1980s" *World Development*, Vol. 26, No. 1, (January, 1998).
- Bennel, P. "Hitting the Target: Doubling Primary School Enrolments in Sub-Saharan Africa by 2015" *World Development*, Vol. 30 No. 7 (July, 2002) pp. 1179-1194,
- Blundel, R., L. Dearden, C. Meghir and B. Sianes. "Human Capital Investment: The Returns from Education and Training to the individual, to the Firm and the Economy" *Fiscal Studies*, Vol. 20, No. 1 (1999) pp. 1-23.
- Bray, M. *The Shadow Education System: Private Tutoring and its Implications for Planners*, Paris: UNESCO, 1999.
- Chediak, R.W., N. Sekwao and P.L. Kirumba. *Private and Community Schools in Tanzania (Mainland)* Paris: International Institute for Education Planning, 2000.
- "Children and the New Millennium" *Development* Vol. 43 No. 1 March 2000, N.p.: SAGE Publication, 2000.
- Chinapah, V. et al. *With Africa, for Africa Towards Quality Education for All*, Pretoria: Human Sciences Research Council, 2000.
- Colclough and S. Alp-Samarrai. "Achieving Schooling for All: Budgetary Expenditures on Education in Sub-Saharan Africa and South Asia" *World Development*, Vol. 28, No. 11, (November 2000) pp. 1927-1944.
- Cooksey, B.; P. Balze and B. Burian. "Education Sector Development Programme and Poverty Alleviation Strategies". Background Paper prepared for the Tanzania Development Research Group (TADREG), Dar es Salaam, 1998.
- Craig, R. "Secondary Education Master Plan (SEMP): Medium Term Strategies and Programme Framework, 1999-2003" Consultancy Report to the Government of the United Republic of Tanzania, 1998.
- Deacon, B. "Globalization and Social Policy" *UNRISD Occasional Paper*, 5, Geneva: n.p., 2000.
- Department for International Development (DfID) (2000) "Strategies for

- achieving the International Development Target: Education for All - The Challenge of Universal Primary Education”, A Report, March, 2000.
- “Education: Study Targets Elusive”, *The African* (November 7th 2001).
- Federal Government of Germany (FGG). “Infrastructure Development in LDCs”, *International Policy Dialogue*, (12-13 March, 2001).
- Galabawa, J.C.J. and A.V.Y. Mbelle. “Aspects of Equity in Education”, in Mbelle, A.V.Y., G.D. Mjema and A.A.L. Kilindo (eds) *The Nyerere Legacy and Economic Policy Making in Tanzania*, Dar es Salaam: Dar es Salaam University Press, 2001.
- _____. “Education Sector Public Expenditure Review” Report to the Government of Tanzania, 2002.
- Griliches, Z. “Technology, Education, and Production Sector Public Expenditure Review” Report to the Government of Tanzania, 1995.
- ICFE. *Education for All: Status and Trends 2000*, Paris: UNESCO, 2000.
- ILO/UNCTAD. *The Minimum Income for School Attendance (MISA) Initiative*, Geneva: ILO/UNCTAD, 2001.
- Jimenez, E. and Y. Sawada () “Do Community-Managed Schools Work? An Evaluation of El Salvador’s EDUCO Program” *World Development*, 1999.
- Keeves, J.P., *National Examinations: Design, Procedures and Reporting*, Paris: UNESCO, 1994.
- Kessy, N.J. (und.) “A Survey of Donor Flows to Tanzania 1996/7 – 2000/01” Background Paper to URT 1997/98 PER, Dar es Salaam: n.p., n.d.
- King, E.M. and P.F. Orazen. “Evaluating Education Reforms: Four Cases in Developing Countries” *The World Bank Economic Review*, Vol. 13 No. 3, September, 1999.
- Lind, A. and C. McNab () “Sector-wide Approach to Education: Views from SIDA”, *Prospects, Quarterly Review of Comparative Education*, Vol. XXX, No. 4, (December, 2000).
- Maliyamkono, T.L. and O. Ogbu (eds). *Cost Sharing in Education and Health*, Dar es Salaam: Tema Publishers Company, 1999.
- Mbelle, A.V.Y. “Action Programme for the Development of the United Republic of Tanzania 2001-2010” Government submission at the Third UN Conference on LDCs, Brussels, (14-20 May 2001).
- _____. Prospects of Achieving International Development Targets in Education

- in African LDCs: An Econometric Analysis: *African Journal of Economic Policy* (Forthcoming in 2001).
- _____. “The HIPC Relief: Too Little, Too Late? Perspective from a new Qualifier Tanzania” *WIDER Discussion Paper_ WDP 2002/122*, (2002).
- _____. “Progress in Meeting Millennium Development Goals: Republic of Yemen” UNDP Report, 2002.
- Michaelowa, K. () “Primary Education Quality in Francophone sub-Saharan Africa: Determinants of Learning Achievement and Efficiency Considerations” *World Development*, Vol. 29 no. 10, 2001.
- Murphy, P. and C.V. Gipps (eds). *Equity in the Classroom: Towards Effective Pedagogy for Girls and Boys*, London/Washington: Falmer Press, 1996.
- Psacharopoulos, G. and M. Woodhall. *Education for Development: An Analysis of Investment Choices*, Oxford: Oxford University Press, 1985.
- Ranis, G., F. Stewart and A. Ramirez. “Economic Growth and Human Development” *World Development* Vol. 28 No. 2 (2000) pp. 197-219.
- Rajani, R.R. “The Education Pipeline in East Africa: A Research Report and Synthesis of Consultations in Kenya, Tanzania and Uganda” Report to Ford Foundation, 2001.
- Rokicka, W. (ed.) *Educational Documentation, Research and Decision-Making National Case Studies*, Paris: UNESCO, 1999.
- Samoff, J. () *Coping with Crisis: Austerity, Adjustment and Human Resource (Education)*, Paris: Cassell/UNESCO, 1994.
- Sekwao, M.V. “Factors Which Contribute to Poor Performance in A Level Science Subjects with Special Reference to Biology in Tanzania: The Case of Coast, Dar es Salaam and Morogoro Regions”. Unpublished M.A. Dissertation, University of Dar es Salaam, 1986.
- Shultz, T.P. () “Why Governments should Invest More to Educate Girls”, *World Development*, Vol. 30 No. 2 (February, 2002) pp. 207-226,.
- United Nations (UN). “United Nations Millennium Declaration”, Resolutions Adopted by the General Assembly, New York: United Nations, 2000.
- _____. “Draft Programme of Action for the Least Developed Countries for the Decade 2001-2010”, Revised Composite Text, New York: United Nations, 2001.
- UNAIDS/ECA. *AIDS in Africa: Country by Country*, Geneva: n.p., 2000.

UNDP () *Tanzania Human Development Report 1999: The State of Progress in Human Resource Development*, Dar es Salaam: n.p., 2000.

UNESCO. "Education for All and Sustainable Development in LDCs: Issues Paper" Presentation at the Third United Nations Conference on the Least Developed Countries (LDC III), Brussels, 14-20 May, 2001.

UNICEF. *Situation Analysis of Children in Tanzania 2001*, Dar es Salaam: n.p., 2002.

UNRISD. *Visible Hands: Taking Responsibility for Social Development*, Geneva: n.p., 2000.

United Republic of Tanzania. *Education and Training Policy*, Dar es Salaam: Ministry of Education and Culture, 1995.

_____. *The National Poverty Eradication Strategy*. Dar es Salaam: Vice President's Office, June, 1998.

_____. *Education Sector Development Programme (ED-SDP)*, Dar es Salaam: MoEC, 1998.

_____. *Education Indicators in Tanzania*, Dar es Salaam: Ministry of Education and Culture, 1999.

_____. *Composite Development Goal for the Tanzania Development Vision 2025*, Dar es Salaam: Planning Commission, February, 2000.

_____. *Report for the Year 1999/2000*, Dar es Salaam: Ministry of Education and Culture (MoEC), 2000.

_____. *Basic Primary Education Statistics, District Level Data 1999, All Regions*, Dar es Salaam: MoEC, May, 2000.

_____. *Basic Statistics in Education Nat, 1985-1995 National Data*, Dar es Salaam: MoEC, June, 2000.

_____. *Poverty Reduction Strategy Paper (PRSP)*, Dar es Salaam: n.p., October, 2000.

_____. *Education Sector Status Report: Tanzania*, 2000.

_____. "Education Sector Public Expenditure Review", Dar es Salaam: n.p., January, 2001.

_____. "International/Millennium Declaration Development Goals Progress" Dar es Salaam: n.p., February, 2001.

_____. "Public Expenditure Review 2000/2001 Tanzania: Fiscal Sustainability", March, 2001.

- _____. “Education Sector Development Programme (ESDP) National Strategy for Basic Education”, Inter-Ministerial Basic Education Task Force, April, 2001.
- _____. *Medium Term Plan and Expenditure Framework (MTEF) 2001-2004*, MoEC & MSTHE, May, 2001.
- _____. Education Sector Development Programme Primary Education Development Plan 2002-2006, July, 2001.
- _____. *Basic Statistics in Education 2000: Regional Data*, Dar es Salaam: MoEC, September, 2001.
- _____. *Economic Survey 2001*, Dar es Salaam: Commission for Planning and Investments, 2002.
- _____. *Ministry of Education and Culture Circulars No. 1, 2 and 7*, April, 2002.
- URT/World Bank. “Tanzania Country Economic Memorandum 2000”, Dar es Salaam, 2000.
- University of Dar es Salaam. “The Multi-dimensional Crisis of Education in Tanzania” Proceedings of a Convocation Seminar, February, 2000.
- Voipio, T. and P. Hoebink. “European Aid for Poverty Reduction in Tanzania”, Overseas Development Institute (OID) Working Paper, 1998.
- World Bank. *Tanzania Social Sector Review*, Washington DC: The World Bank, 1999.
- _____. *Can Africa Claim the 21st Century?* Washington DC: The World Bank, , 2000.
- _____. *World Development Report 2000/2001 Attacking Poverty*, Oxford: Oxford University Press, 2001.
- World Council of Churches: *Justice, the Heart of the Matter: An Ecumenical Approach to Financing for Development*, Toronto, Ontario: n.p., 2001.