

**TEXTBOOKS, SCHOOL LIBRARIES AND THE
PROVISION OF INFORMATION & COMMUNICATION
TECHNOLOGIES FOR SECONDARY SCHOOLS**

A ROADMAP FOR REFORM

Draft Report

March 2008

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i) Abbreviations

AfDB	African Development Bank
BOG	Board of Governors
BTVET	Business Technical and Vocational Education & Training
CFO	Chief Financial Officer
CRC	Camera Ready Copy
DEO	District Education Office
DFID	Dept for International Development (of the British Government)
EFAG	Education Funding Agencies Group
EPD	Education Planning Department (of MOES)
ESCC	Education Sector Consultative Committee
ESIP	Education Sector Improvement Programme
GOU	Government of Uganda
ICT	Information and Communications Technologies
ISP	Internet Service Provider
MFPED	Ministry of Finance, Planning and Economic Development
MOES	Ministry of Education and Sports
MS	Microsoft
NCDC	National Curriculum Development Centre
NGO	Non Government Organisation
OS	Operating System
PPET	Post Primary Education and Training
PTA	Parent Teacher Association
RNE	Royal Netherlands Embassy
SCL	Student Centred Learning
SCR	Student Classroom Ratio
SRM	Supplementary Reading Materials
SSA	Sub-Saharan Africa
STR	Student Teacher Ratio
STSC	School Textbook Selection Committee
TCO	Total Costs of Ownership
TLM	Teaching and Learning Materials
TORs	Terms of Reference
TVET	Technical and Vocational Education & Training
IMU	Instructional Materials Unit (of the MOES)
UBA	Uganda Booksellers Association
UNEB	Uganda National Examinations Board
UPA	Uganda Publishers Association
UPE	Universal Primary Education
UPPET	Universal Post Primary Education & Training
UPS	Uninterrupted Power Supply
WB	World Bank

ii) Introduction

This Road Map for Reform of the Provision of Learning and Teaching Materials to Secondary Schools in Uganda is based on discussions with senior MOES officials on current policies towards PPET. The assessment of the current situation concerning learning and teaching materials in PPET institutions was based on a survey conducted in December 2007, which updated a previous detailed survey of secondary instructional materials provision in Uganda conducted in 2002. It also takes into account for purposes of comparison with policies and practices in other SSA countries the findings of a recent World Bank financed research report on textbooks and school library provision in Sub-Saharan Africa². The Road Map contains recommendations, timetables and cost estimates for reform of textbook and supplementary and didactic materials provision in line with current GoU/MOES policies

The TORs for the current review (see [Annex 1](#), below) also included a new component by specifying that the 2007 review and recommendations should include a consideration of possible ICT components. In 2002, ICT hardware and usage in secondary schools was still in its infancy. In 2007 ICTs were in evidence in all surveyed secondary schools and the development of a national policy towards ICT provision and development is now considered to be overdue and a high priority as part of the reform agenda. A recent regional study on ICT in general secondary education³ has concluded that ICT investment can have very expensive recurrent cost implications and that the initial (and ongoing) investments in hardware are frequently not optimised as a result of inadequate operational budgets and poor policy making and the failure by both schools and government to fully appreciate the recurrent and associated costs of ICT-based education.

At the time of writing, the US\$/USh exchange rate was US\$1,685 to US\$1

² **Read T, Bontoux V, B, Buchan A, Foster D and Bapuji T** (April 2007) [Secondary School Textbook and School Library Provision in Sub-Saharan Africa](#) International Education Partners, London for the World Bank

³ **Read T et al** (January 2008) [ICT in Basic Education in Central Asia](#) Linpico (France) for the Asian Development Bank

PART ONE: A WIDER PERSPECTIVE

1. SECONDARY TEXTBOOK PROVISION IN OTHER SSA COUNTRIES

This section is derived largely from recent research into secondary textbook provision in 19 SSA countries (see footnote 2 on page 4, above). The executive summary of this research report concluded as follows:

- *There are considerable variations in the textbook requirements needed to meet basic secondary curriculum specifications in the 19 countries studied for the review - from a low of textbooks for 6 subjects to a high of textbooks for 14 subjects for junior secondary*
- *In some countries where there are no national approved textbook lists there can be significant variations in the basic textbooks specified for use in different schools in the same country*
- *There are considerable differentials between countries in the average price of recommended/approved textbooks⁴ and basic reference books (dictionaries and atlases). These differentials can be extreme with average textbook prices 4 to 5 times greater in some countries than in others. Kenya and Tanzania seem to have the lowest average secondary textbook prices. Cote d'Ivoire, Cameroon, Lesotho and Uganda have the highest average secondary textbook prices among the countries studied for this review*
- *Secondary textbook prices can vary considerably within individual countries according to geographical location. This is caused by price mark-ups and is typical in countries where parent purchase is the dominant method of secondary textbook financing*
- *In parent purchase situations, specified textbook requirements frequently have been devalued by unrealistic specifications, high prices and poor availability and in a majority of countries few students now even attempt to meet the requirements laid down by schools and/or Ministries except perhaps for language and maths textbooks. Equally few schools expect students to have textbooks outside the two dominant subjects considered by most schools and by most students to be the high priority textbooks*
- *With the right policies and strategies there should be no reason in most countries why secondary textbook prices should exceed US\$4-6. However, very small market size combined with a requirement for*

⁴ The average secondary textbook price is quite a difficult concept to compare between different countries because of the different systems that are in place. In countries like Nigeria, Kenya and Tanzania there are official approved secondary textbook lists where price is a key factor in the decision to award approved status and where the price is fixed and widely advertised. In Uganda, where there is no official approved secondary textbook list each individual school makes its own selection of textbooks. These lists can vary very widely in size, suitability for purpose and in cost. Thus the average secondary textbook price in Uganda is not the price of an MOE officially approved textbook, but the average price of the textbooks recommended by a cross-section of different schools. It is clear from both the original 2002 research and the research undertaken in 2007 that relatively few students in Uganda even attempt to buy most of the textbooks specified by schools – and all schools are fully aware that this is the situation. Only a few relatively elite secondary schools attempt to ensure basic textbook provision for their students

locally specific content and high presentational and physical specifications (e.g. Botswana) will always create more expensive books

Tables 1 and 2, below, provide details of the numbers of specified textbooks, the average unit costs and the total cost (notional) of a student purchasing an entire set of specified textbooks. These tables suggest that Uganda has a higher quantitative textbook requirement and higher average unit prices than many of the other countries surveyed and that as a result the total cost of a typical set of specified textbooks is higher than in other countries.

The large number of specified textbooks is a result of a combination of curriculum design and the lack of an approved list of textbooks. Where there is no approved list and thus no requirement for publishers to produce one textbook to cover the whole syllabus, some secondary schools may recommend several different textbooks for one subject, each of which contributes to a different part of the syllabus (O & A level geography is a typical example, where physical geography, human and economic geography, regional geography and map reading and photographic interpretation may all be recommended as separate textbooks, often published outside East Africa and thus importing developed country overheads and prices). The fact that it is possible to have secondary school textbooks at much lower prices is clearly demonstrated by the examples of Kenya, Tanzania, Ghana and Nigeria.

In 2007, Kaduna State in Nigeria issued “*Joining Instructions for Junior Secondary Schools*”, which specified that all students must possess their own personal copies of one of the approved 4 core textbooks in English, Maths, Social Studies and Integrated Science and that they are *recommended* to own their own copies of textbooks for Business Studies, Religious Education (either Christian or Islamic), Physical and Health Education, Local Language (Hausa or Igbo or Yoruba), Agricultural Science, Home Economics, Introductory Technology and Fine Art. Kaduna State publishes its own list of approved and recommended textbooks selected from private sector submissions and based on an evaluation that specifies the following criteria:

- Adequate curriculum coverage
- High print quality
- Durability of text paper
- Attractive and durable binding
- Adequacy of riders and worked examples
- Adequacy, accuracy and clarity of illustrations
- Simplicity and clarity of language

Far more students buy the compulsory textbooks than the recommended textbooks, but because prices are much cheaper, more students own a majority of the specified textbooks in Nigeria than in Uganda.

Another factor that needs to be taken into account is the geographic stability of the prices. In many countries, prices to the purchaser tend to rise steadily with distance from the capital city to take account of transportation charges

and increased stock risk. In Uganda, primary textbook supply managed to remove geographic mark-ups because a common national price was made a condition of textbook approval. There is no reason why the success of the primary textbook supply system should not be applied with equal success to secondary textbooks. Kenya probably achieved the lowest secondary textbook prices of the surveyed countries, largely because there is a national secondary textbook approval process and a national approved secondary textbook list and price is one of the factors that is given prominence in the evaluation and approval process. This is also generally true in Tanzania and in Ghana and Togo, although the textbook approval process works in different ways in each country. In these situations there is a positive incentive for publishers to achieve good prices because low prices achieve higher marks in evaluation schemes and thus contribute to getting on to the approved textbook list. Other evaluation criteria ensure that good content and production quality standards and conformity to curricula requirements are maintained. Failure to achieve approved list status can be very serious for both submitted books and for the publishers who fail. As a result, private sector publishers, both indigenous and multinational, take these national approval competitions very seriously.

In summary, Uganda currently has a secondary textbook system that tends to generate either high textbook costs for students, or, more typically, low levels of textbook ownership and access. This situation in turn has an adverse impact on student performance, often on teacher performance as well, and on the quality of secondary education provided. Other SSA countries clearly demonstrate that it is possible to have lower cost secondary textbook systems.

Table 1: Secondary Textbook Requirements & Costs in Selected Countries

GRADE LEVEL	Botswana		Cameroon		Cote d'Ivoire		Ghana		Kenya		Lesotho		Malawi		Tanzania		Togo		Uganda	
	No of Books Req'd	Cost of a Set US\$	No of Books Req'd	Cost of a Set US\$	No of Books Req'd	Cost of a Set US\$	No of Books Req'd	Cost of a Set US\$	No of Books Req'd	Cost of a Set US\$	No of Books Req'd	Cost of a Set US\$	No of Books Req'd	Cost of a Set US\$	No of Books Req'd	Cost of a Set US\$	No of Books Req'd	Cost of a Set US\$	No of Books Req'd	Cost of a Set US\$
6			10	94.5													7	65.2		
7			11	97.4													6	56.8		
8			11	99.8	10	75.5	8	40.6						6	20.1	6	57.8	14	155.1	
9	9	99.6	13	116.3	8	61.1	8	41.6	15	57.0	8	150.0	12	84.7	6	25.3	6	59.5	14	155.1
10	9	101.9	11	116.1	14	111.1			15	62.0	8	123.7	13	84.3					10	150.0
11			10	105.7	20	261.6					7-10	77.4			6	26.7			10	150.0
12	7	122.1	12	149.8	5	65.8			15	62.8	9	284.4	13	158.9						12
13											9	45.59								12

Table 2: Average Unit Textbook Costs in US\$ by Grade Levels in Selected Countries

GRADE LEVEL	Botswana	Cameroon	Cote d'Ivoire	Ghana	Kenya	Lesotho	Malawi	Tanzania	Togo	Uganda
6		9.45							9.31	
7		8.85							9.47	11.10
8		9.07	7.55	5.08				3.35	9.63	11.10
9	11.07	8.95	7.64	5.19	3.80	18.75	7.06	4.22	9.92	15.00
10	11.32	10.55	7.94		4.13	15.46	6.48			15.00
11		10.57	13.08			9.68		4.45		17.00
12	20.35	12.48	13.16		4.19	31.6	12.22			17.00
13						5.07				

PART TWO: THE CURRENT SITUATION IN UGANDA

2. CURRENT TEXTBOOK AVAILABILITY IN SECONDARY SCHOOLS

2.1 Current Textbook Availability

In 2002, even the best and most prestigious secondary schools in Uganda were short of basic textbooks in core subjects (Maths and English) for UCE and UACE. The lower level private schools and the 'average' government-aided secondary schools, probably the majority, had very few, if any, textbooks available for student use and the best that could be hoped for was that teachers would have a copy of a basic subject textbook. Most available textbook sets were old (frequently between 6 and 20+ years of use) and although they were often looked after with a remarkable degree of care and devotion, they were frequently in poor condition. The most significant source of subject information for students usually came not from textbooks, but from notes copied from the blackboard or dictated by the teacher or provided from 'pamphlets' (see below) In 2007 the basic situation remained the same. Although systems, conditions and levels of provision vary considerably, none of the 35 schools visited in 2002 or the 11 schools surveyed in 2007, even the most expensive and prestigious schools, had adequate textbook supplies for most of the subjects in which students would eventually be examined. The average school had very poor textbook supplies and many schools had virtually no books at all. Poor levels of textbook provision were not the prerogative just of unaided schools. Government assisted schools were also severely under-provided as well. For the 11 schools surveyed in 2007 the average textbook/student ratios are provided in Table 3 below

Table 3: Average Textbook/Student Ratios across 11 Secondary Schools (2007)
 Estimated Average textbook:pupil ratios in main subjects at different grade levels

Subject	Forms						Totals
	S1	S2	S3	S4	S5	S6	
Maths	5.6	5.4	5.6	5.8	4.4	4.4	5.20
English Lang	16	15.8	16	16.2			10.67
English Lit	25.2	25.2	24.6	24.6	19.9	19.9	23.23
Physics	25.2	25.2	25.2	25.2	20.9	20.9	23.77
Chemistry	25.2	25.2	25.2	25.2	20.9	20.9	23.77
Biology	26.5	26.5	26.5	26.5	21.9	21.9	24.97
History	42.8	42.8	42.8	42.8	25.3	25.3	36.97
Geography	42.8	42.8	42.8	42.8	25.3	25.3	36.97
RE	43.7	43.7	43.7	43.7	25.2	25.2	37.53
Economics	43.7	43.7	43.7	43.7	25.1	25.1	37.50
Commerce	36.2	36.2	36.2	36.2	25.3	25.3	32.57
Agriculture	39.2	39.2	39.2	39.2	25.3	25.3	34.57
Computer Studies	40	40	40	40	27.4	27.4	35.80
Totals	31.70	31.67	31.65	31.68	20.53	20.53	27.96

Table 3 seems to suggest that for the random sample of schools surveyed in 2007 the current textbook provision situation is, if anything, somewhat worse than it was in 2002. Certainly, there is no obvious sign of improvement. The best provided subject at all grade levels in 2007 is Maths with an average level of provision for grades 1-4 of 1 textbook to 5.6 enrolled students. In Forms 5 & 6 the level of provision improves to 4.4 students per book. English language textbooks, which in 2002 were pretty much on a par with Maths

textbooks, now seem to have slipped seriously behind with an average level of provision in Forms 1-4 of one book per 16 students. In all other subjects the average level of provision was far worse than in 2002 and varied from 1 textbook for 23 students in English Literature to 1 to 36 in Computer Studies. It should be stressed that these poor results are not the result of a concentration on poorer secondary schools in 2007 compared to 2002. The available evidence suggests that the level of textbook provision has simply deteriorated between 2002 and 2007, despite MoES efforts to support textbook supply to selected secondary schools

2.2 Textbook Affordability and School Textbook Budgets

In 2002 11 case studies, provided information on school enrolments and textbook/library budgets allocated from school income. The purchasing power generated from those school textbook/library budgets is demonstrated in Table 4, below. This table is based on the following assumptions:

- Basic textbook requirement = $\frac{\text{student roll numbers} \times \text{minimum no of required subject textbooks}}{3}$ (minimum textbook:pupil ratio)
- No of required textbooks = 10 (No of subjects which must be taken for UCE)
- Textbook:pupil ratio = 1:3
- Unit textbook cost = US\$15.00 (see Section 2.5, above)
- Purchasing Power = $\frac{\text{School Textbook Budget}}{\text{Unit Textbook Cost}}$ = No of textbooks purchasable with budget
- Affordability Index = No of years to achieve basic requirement = $\frac{\text{Basic Requirement}}{\text{Purchasing Power}}$

Table 4: Purchasing Power of School Textbook Budgets (2002 – based on 11 case studies)

Case Study	Case Study Roll Number	Basic Textbook Requirement	Case Study Annual Textbook Budget (US\$)	Purchasing Power (Books/Year)	No of Years to Achieve Basic Textbook Requirement
1	1100	3666	1,700	113	32.44
2	1200	4000	3,200	213	18.78
3	200	666	Nil	0	Never
4	1000	3333	Nil	0	Never
5	200	666	Nil	0	Never
6	1800	6000	2285	152	15.03
7	380	1267	465	31	40.87
8	300	1000	90	6	166.67
9	170	567	55	4	141.75
10	566	1887	850	57	33.10
11	320	1067	340	23	46.39
	7,236	24,120	8,985	599	40.27

Table 4 demonstrates that in 2002 none of the case study schools had allocated textbook budgets sufficient to reach even the minimum levels of textbook requirement within normal textbook life expectancy, even with outstanding levels of book care and devotion (6-8 years of textbook life, or even longer, appears to be achievable by many secondary schools, although textbook condition is generally pretty poor after 6 years of use). Three schools allocated no textbook budget at all. Of the others, one school would achieve the minimum requirements with its current textbook budget in just under 19 years – and this was the case study school with the best allocated textbook purchase budget. Another school would have reached its minimum

requirement at current levels of spending in just under 167 years. The mean figure for all 11 case study schools in 2002 was 40.27 years to achieve minimum requirements. Clearly, insufficient funding was made available to support even minimum levels of provision

It is clear from Table 4 that the only way of closing the financing gap for basic textbook provision is (a) to dramatically increase annual textbook expenditure from school annual budgets/student contributions, or (b) to reduce unit textbook costs, or (c) to reduce the minimum textbook requirement. In reality, it is probable that all of these objectives would have to be achieved if secondary schools were to achieve and sustain a minimum level of textbook availability to students across all subjects.

In 2007, Table 5 indicates that the average number of textbooks specified by schools by Form and the average textbook prices have increased since 2002. 9 out of the 11 surveyed schools had annual textbook budgets. The average number of specified textbooks (including an atlas, a dictionary and a Bible/Koran) had increased to 15 for Forms 1-4 and the average textbook price was USh21,875 (US\$13.00)

Table 5: Textbook Requirements and Costs in 2007
How much would a full set of textbooks cost for each Form ?

Form	No of Textbooks Req'd	Total Estimated Cost for a Full Set of Textbooks	Average Textbook Price (USh)
S1	17.38	312,500	20,000
S2	17.50	320,000	20,000
S3	13.00	420,000	23,750
S4	14.13	487,500	23,750
S5	12.50	950,000	46,875
S6	12.50	950,000	46,875
Total	87	3,440,000.00	30,208.33

On this basis the minimum textbook requirement in the surveyed schools for Forms 1-4 of

□ Basic textbook requirement = $\frac{\text{student roll numbers} \times \text{minimum no of required subject textbooks}}{3}$ (minimum textbook:pupil ratio)

can be calculated for 2007 as $\frac{4,874 \times 15}{3} = 24,370$ textbooks

In order to achieve this minimum level of supply the surveyed 11 schools would be required to allocate US\$13.00 x 24,370 textbooks out of their school budgets spread over a 6 year book life = US\$53,802 per year. In reality, the total annual allocation for school textbooks made from the 11 schools amounted to only US\$9,036.00 in the previous school year. On this basis it would take almost 36 years to accumulate the minimum number of textbooks required by the students – by which time increased roll numbers, loss and damage etc would have rendered the expenditure meaningless.

The above calculation is intended to demonstrate that schools are still significantly under-spending in the achievement of their own specified

textbook targets based on their own recommended textbook lists. The difference between the 40 years calculated in 2002 and the 36 years calculated in 2007 has no significance since the school sample is not directly comparable, but it is clear that schools were under-spending against requirements in 2002 and are still doing so on much the same scale in 2007

2.3 Textbook Affordability to Parents

A majority of the textbooks used in Uganda secondary schools are still imported from the UK⁵ and the UK prices are high relative to the purchasing power of most of the students/parents. This is particularly apparent for textbooks for science and technical subjects. In addition, local mark-ups on the UK prices are normal commercial practice, but these mark-ups tend to increase local prices even further. While this is a normal and generally acceptable commercial practice to cover local overheads and profit expectations, even so, local textbook prices are high in the Ugandan context and they are therefore generally unaffordable to an overwhelming majority of secondary school students and their parents⁶.

It should be stressed that the price problem is not the result of profiteering by local textbook importers. As part of the research for the 2002 study a comparative price study was undertaken of secondary textbooks that were commonly used in both Kenya and Uganda. The study compared the prices of 47 secondary textbook titles from 8 different UK publishers on retail sale in both Kenya and Uganda during a 3-day period from November 16th to 19th 2002. The price research was conducted in Textbook Centre, Nairobi and in Aristoc and Mukono Bookshops in Kampala. The local prices in Kenya and Uganda were converted into sterling at the prevailing exchange rates and then compared with the UK retail prices via the Amazon Internet site. Spot checks were made with the 8 UK publishers to ensure that the Amazon site prices were in fact identical to the publishers' retail prices for the same books for the same period. The conclusions of this study were as follows:

- Overall, Ugandan textbook retail prices were slightly cheaper than Kenyan prices for the same textbooks (approximately 9.5% cheaper over all comparable titles)
- In Kenya the average local price mark-up on UK retail prices was just over 3.0%
- In Uganda, the average local price was 6.5% *lower* than the equivalent UK retail prices at current exchange rates, which suggests that generous discounts being offered by the original publishers were being passed on to the Uganda customer by the book importers, which was very satisfactory

Although there was insufficient time available in December 2007 to undertake

⁵ There is good evidence that both MoES and publishers are making an effort to encourage the use of local Ugandan published titles, particularly for junior secondary Forms but the risks involved and the difficulty of achieving new sales in a system heavily based on 'topping-up' rather than ordering new sets is considerable, so that progress over the whole PPET system has been relatively slow. It is clear that in order to achieve a shift to cheaper and more suitable textbooks oriented more specifically to market needs and requirements a re-think of the whole system is required rather than just tinkering with details

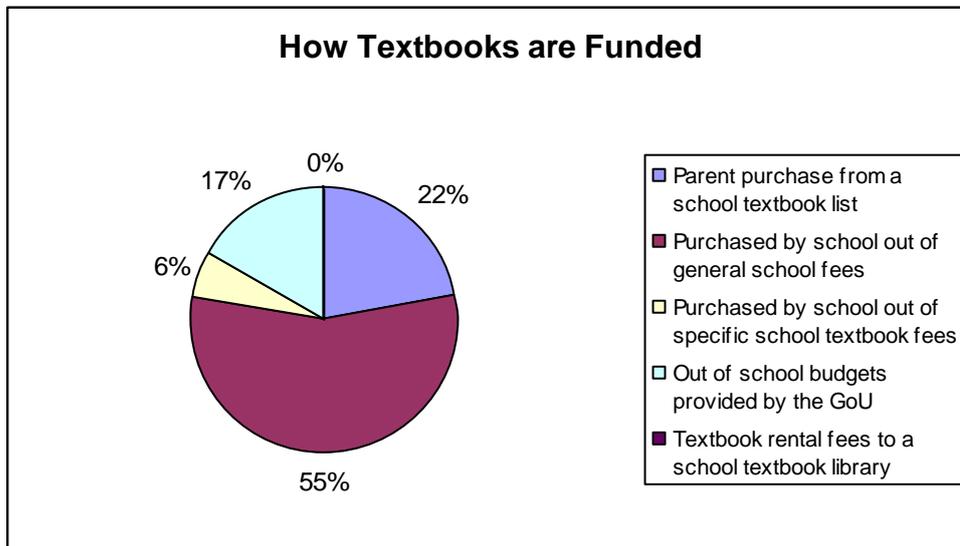
⁶ It is worth bearing in mind, however, that the high physical standards of the textbooks allows for long book life in the classroom and thus maximum cost amortisation once basic stocks have been provided. In general, it is cheaper in the long run to pay more for high physical specification books which have a long book life than to pay less initially but to replace more often

the same scale of research into price differentials and mark-ups it is clear that the picture has not changed significantly since 2002. In general, Uganda textbook importers are not engaging in unacceptable profiteering and their prices are comparable to and in some cases very slightly better than Kenyan prices and are considered to be reasonable for the risks undertaken and the services provided.

In 2007, Chart 1, below sets out the different methods of procuring textbooks utilised by the surveyed secondary schools. 6 out of 11 schools purchased books out of their own allocated operational budgets, and a further school purchased textbooks from a part of the school fees specifically identified to parents as being for this purpose. Only 5 out of 11 schools expected parents to be the dominant source of textbook purchase for most textbooks. 3 schools saw MoES supplies as the main source of their textbooks, although it is clear that these schools also made some (inadequate) budget provision for textbook procurement in addition to the MoES supplies.

9 out of 11 schools operated some form of textbook lending to students with loan periods of one week being dominant (7 out of 11 schools). One school loaned textbooks only for a specific lesson and two schools claimed that they loaned books for a whole term – although bearing in mind the level of provision in these schools this response seems unlikely.

Chart 1: Textbook Funding Mechanisms



Only 10% of students in the 11 schools surveyed were estimated to have all or most of their required textbooks and in every case this was achieved by parent purchase. One parent with two children at one of the better thought-of Kampala secondary schools estimated that she had spent over US\$300.00 in

one year for a Form 4 student's textbooks in order to ensure the best possible chance at UCE exams.

Curiously, second-hand book markets have hardly developed at all in Uganda. 10 out of 11 schools considered lack of textbooks to be a major issue inhibiting student performance and educational quality. 100% of schools visited in 2007 felt that textbooks were too expensive for both schools and parents to afford.

2.4 Textbook Availability for Purchase

Aristoc is the dominant secondary textbook stocking bookseller in Kampala and is a regular supplier to many of the major secondary schools, particularly in the capital but also to other parts of Uganda. There are other booksellers but most schools identify Aristoc as the best of the local booksellers for secondary school textbooks. It maintains a good selection of basic secondary textbooks, including the basic literature set books. It has, in the past, ordered its own reprints of "out-of-print" set literature texts. It produces stock lists with local prices, which are used by many schools as the basis for the compilation of their own book lists for student purchase.

Booksellers travel far less to the secondary schools than publishers, largely because they claim that most publishers compete directly with the booksellers by offering to sell direct to schools, sometimes at higher discounts than are offered to the booksellers. Standard publisher discounts to booksellers are 20% and there are reports from booksellers of 25% discounts offered to schools for direct supply by publishers. Despite this reported competition, many of the more established local secondary schools prefer to order from Aristoc and other booksellers because of the convenience of being able to order all of their supplies from one source.

Of the 11 schools surveyed, all confirmed that they purchased mostly from booksellers, but 5 out of the 11 schools confirmed that they had also purchased direct from publishers as well and that inducements were offered to them to encourage them to do so.

Outside Kampala the secondary textbook stocking situation is far less satisfactory, although there are reasonable stocking booksellers in provincial towns such as Mbarara, Mbale and Soroti. In general, however, there are very few reasonable secondary textbook retail outlets outside Kampala and teachers and students have little opportunity to purchase or even see core textbooks unless they can travel to Kampala (or Mbarara, Mbale or Soroti) to do so. Most schools in rural areas are seriously short of information on, and access to, appropriate secondary textbooks and this is reflected in the continued recommendation of old textbooks, which are familiar to the teachers from their own days as students.

Evidence of regular publisher promotional visits was found in most of the well-established secondary schools visited as part of the field research in 2002 and in 2007 but very few of the less well-regarded secondary schools are visited by publishers.

2.5 Pamphlets

Over the past few years the use of locally authored pamphlets has grown in popularity among students and some schools. The pamphlets are usually written by local secondary school teachers and (sometimes) by UCE/UACE examiners as 'crammers' to help students pass examinations. The pamphlet is typically a resumé and often a plagiarisation of several popular textbooks and supplies model answers to common exam questions. The pamphlets do not 'teach' a subject or attempt to assist students to learn. Instead they aim to supply answers and a 'crib' to exam questions. The best schools are very wary of the quality of these pamphlets, which often have serious factual and editorial errors and in any case strongly encourage rote learning rather than genuine subject understanding. The pamphlets are also generally very poorly produced. Many good schools neither recommend nor use them. Nevertheless, they are cheap (less than half the price of the average commercially published textbook) and quite widely available and are thus popular in schools where textbook sets are scarce or non-existent. Where a teacher is also a pamphlet author they are often a more or less compulsory purchase for students. They are often the only publication that a parent or student can afford. Because of their growing popularity with students, a number of reputable booksellers in Kampala now stock and sell these pamphlets, sometimes in preference to the standard textbooks.

It was noticeable during the field visits in 2002 and 2007 that some schools and students claim that even pamphlets are no longer easily affordable to many schools and students

2.6 Recommended/Approved Textbook Lists

Almost every school visited and teacher interviewed in both 2002 and 2007 would welcome the annual publication of an official list of textbook titles recommended or approved by the MoES for use in secondary schools with current prices agreed with the MoES. Very few schools have a clear idea of the full range of available titles and very few are aware of the strengths or weaknesses of any one textbook in relation to the demands of the curriculum or examination. This will be a particularly important issue in the introduction of the new secondary curriculum. Most schools, particularly those outside Kampala, felt that they needed help in identifying suitable textbooks at reasonable prices. Booksellers would also generally welcome the introduction of an approved list as it would reduce their stocking risks. It is likely that some publishers would oppose such a list on the grounds of "restraint of free competition" - unless they could ensure that their titles were on the list.

At present, the MoES issues a single list of prescribed literature textbooks. Although this list is theoretically useful it has a number of problems:

- The list is changed too frequently, which involves schools in additional expenditure in purchasing new sets of literature textbooks. At UACE level frequent changes of set texts are reported to have seriously affected the number of students who wish to study literature
- The list is often out of date and sometimes includes a number of out-of-

print titles⁷. This creates serious problems for schools who cannot buy the books even if they can afford them. MoES/UNEB must check on availability prior to setting a new literature title and should give schools, booksellers and publishers at least two years notice of changes to avoid expensive “dead stock” titles

- Information on changes and options does not always reach all of the schools in time. There can be serious repercussions if schools present students for examinations who have studied the wrong set books

Lists of set texts and recommended/approved textbooks should be drawn up bearing the following key issues in mind:

- a) The low level of affordability of most students and secondary schools. Price is therefore a critical issue in the recommendation of textbooks
- b) The unwillingness of many teachers to change from a familiar, but not necessarily appropriate, textbook.
- c) The *real* level of reading ability among many secondary students.
- d) The real financial difficulties that all schools face in replacing existing textbook sets.
- e) The need for a completely objective, transparent and fair system of textbook evaluation and approval
- f) The need for a realistic lead time to enable publishers to respond adequately to invitations to make submissions

It should be noted that literature as a subject is considered by many teachers to be dying in most schools. A number of commentators believe that this is because of the basic requirement for reading the text – and there are few texts currently available in schools. Thus, if the texts are not available (and students are unwilling to buy their own) then very few students are entered for the examination

2.7 School Book Lists

There is a huge variety of school originated recommended textbook lists. Some book lists are very large, often containing radically unsuitable titles (some secondary school book lists contain undergraduate science textbooks) and unrealistically expensive textbooks (one school book list in 2002 recommended a title with a local price of US\$155,000 - equivalent to US\$89 in 2002.) Only 4 out of 11 schools confirmed that they took textbook prices into account when constructing their book lists. One school commented that there was no point in worrying about prices when compiling their book lists because students weren't going to buy anyway.

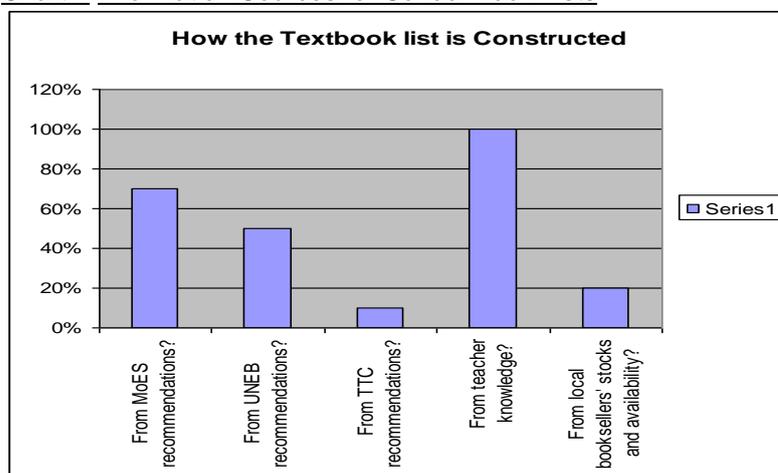
Other school book lists may be dominated by very old textbooks, which were used by teachers when they were at school, or which reflect the fact that the core school textbook sets have not changed for many years. These lists often contain exclusively UK content (particularly for some science textbooks). Only

⁷ UNEB claims, probably not unreasonably, that publishers always confirm that titles are in print when they check on availability but are often out of print when the set book lists are announced. Publishers claim that the long lead times between considering a set book and announcing it mean that there will always be titles that were in print when the UNEB enquiry was made, but have gone out of print two years later when the lists are announced

3 out of 11 schools claimed that they considered local content as an important issue in selecting books for their book lists.

Other lists concentrate on UCE or UACE textbooks (S4 and S6) only and ignore recommendations for S1, S2, S3 and S5. In some schools S1 students are recommended to buy the S4 textbook only, which they may use throughout their 4 years of UCE preparation without access to any other books, unless provided by the school. It is quite common for book lists to be given only to S1 and S5 students. One school book list recommended 13 different titles for UCE Geography and 5 different titles for UCE Biology. Very few book lists take any serious account of price or affordability (see above) and many book lists are unrealistic in terms of what students might be able to afford. A number of recommended textbooks are either out of print, or are not stocked locally. 8 out of 11 schools surveyed in 2007 claimed that students complained that some of the textbooks on recommended lists were not available for purchase. Only a very few schools had prepared carefully thought-out lists of targeted, high priority textbooks, which are locally available at prices that might be affordable. Schools that specify realistic student purchases usually achieve far higher levels of student compliance than schools that provide unrealistic scatter-gun lists. It is worth noting that in districts further away from Kampala few schools attempt to produce any sort of recommended book lists. The majority of schools in rural and remote areas recognise that parent purchasing power is too limited for most parents to be able to consider buying any textbooks and that secondary textbooks, in any case, are often not available for purchase locally within the district. Chart 2, below, summarises information collected in 2007 on the way in which school textbook lists are compiled. It supports very strongly the situation reported by the 2002 survey. All surveyed schools based their textbook lists on teacher knowledge of the subject and the available textbooks. 8 out of 11 schools claimed that they also took account of MoES recommendations. UNEB recommendations (mostly in regard to set literature texts) were used by 50% of schools. Booksellers' stock lists, which would contain the only reliable guide to price and availability, were consulted by only 3 out of the 11 surveyed schools – and those were mostly in Kampala or the immediate environs. TTC recommendations were used by only 1 out of 11 schools.

Chart 2: Information Sources for School Book Lists



The widespread reform of school textbook lists is obviously a high priority in any approach to a reform programme for textbooks and instructional materials provision.

2.8 Estimate of Textbook Stock Requirements and Costs

In 2002 in an attempt to estimate the value of textbooks required by an average school in order to provide sufficient stocks to meet the demands of the (then) proposed new curriculum, a sample school was selected as the basis for a system model. This model was retained for the 2007 update but the inputs were updated to reflect the 2007 findings

Table 6 below calculates the costs of providing one textbook for every 3 pupils in this 'model' school for each subject at each form level plus one copy of each textbook for the use of the teacher. The assumption of numbers of textbook titles required at each form level is based on the requirements specified in Table 5, above. Although fewer subjects are studied at S5 and S6 there is a need at UACE level for several textbooks for most subjects – and the textbooks are more expensive.

The prices have been calculated on the basis of survey responses (see Table 5) following average prices of textbooks currently available in local bookshops (there is of course considerable variation in pricing between subjects):

- S1 and S2 - average US\$12.00
- S3 and S4 - average US\$13.00
- S5 and S6 - average US\$28.00

The number of pupils per grade level are the actual student numbers of the model school

Table 6 indicates that an initial investment of US\$31,353.00 would be required to provide basic textbook provision for this school. The model school operates parallel classes at S1 to S4, so that careful timetabling and good school management and class organisation could cut the cost of the textbook requirement for S1 to S4 by approximately 50%. On this basis, the model school would need an initial investment of US\$24,752.00. However, it is clear that this cost reduction could only operate where there was at least double streaming, and not all multiple streamed schools in Uganda would have the management capacity to handle the organisation required for cost reduction via multiple textbook use by more than one stream. It should be noted also that the above cost represents initial investment only and that there would be annual maintenance costs to replace lost and terminally damaged books and to cope with predicted rapid enrolment growth. There would also be a need to factor in replacement costs when textbooks reached the end of a reasonable life span (6 years would seem to represent a reasonable book life in Ugandan secondary schools)

Table 6: Cost of Basic Textbook Provision for S1 to S6

FORM	NO OF TEXTBOOK TITLES REQ'D	COST OF 1 FULL SET OF TEXTBOOKS (US\$)	NUMBER OF STUDENTS	NO OF TEXTBOOK SETS REQ'D ⁸	TOTAL COST (US\$)
S1	17	204.00	100	34	6,936.00
S2	18	216.00	84	29	6,264.00
S3	13	169.00	108	37	6,253.00
S4	14	182.00	123	42	7,644.00
S5	12	336.00	10	4	1,344.00
S6	13	364.00	20	8	2,912.00
Totals	87	1,471,000	445		31,353.00

In order to simplify future cost calculations Table 7, below, provides the unit costs of provision for S1 to S4 and for S5 to S6. Once again, as a means of simplification, the unit costs have been calculated for all UCE students and then for all UACE students separately

Table 7: Unit Costs per Student of Basic Textbook Provision (including the cost of provision of teachers copies)

FORMS	TOTAL NUMBER OF STUDENTS	TOTAL COST OF BASIC PROVISION (US\$)	UNIT COST PER STUDENT (US\$)
S1 – S4	473,704	31,193,365	65.85
S5 – S6	53,966	6,478,920	120.06

The Unit Cost per student of the purchase of basic supplies of new textbooks to support the proposed new curriculum (on the basis of 1 book for each required subject per grade level plus a contribution to the costs of teachers copy provision plus a provision level of one book to three students) is therefore:

- US\$65.85 for S1 to S4
- US\$120.06 for S5 to S6

It is noticeable that the unit costs have increased by over 60% for Forms 1 to 4 and by 70% for Forms 5 and 6 since 2002. This does not appear to be caused solely by increased prices but also by increased specifications on school book lists. It should be remembered that these unit costs are based on an average of what schools specify that students should have – not on what is actually provided, nor on what it is reasonable to expect should be provided

2.9 Textbook Loan Schemes⁹

It is clear that the kind of investment in textbooks illustrated in Table 7, above, is likely to prove impossible, for a majority of secondary school students. At the same time, the support costs involved in establishing, maintaining and replacing reasonable core textbook stocks will be very high unless reforms are introduced. Indeed, unless there are radical reforms it is unlikely that the textbook supply position will improve. At a time of very high growth in secondary roll numbers, the cost burden of potential GOU/donor support for

⁸ Based on 1 textbook per 3 pupils plus 1 teachers' copy

⁹ The difference between a textbook loan scheme and a textbook rental scheme is that a loan scheme does not require student payment whereas a textbook rental scheme requires students to pay a rental fee for the textbooks borrowed. Both schemes would normally imply the payment of a student penalty for lost and damaged textbooks

basic textbook provision will also grow very rapidly. Some form of cost reduction policy is therefore urgently required if basic instructional materials support is to be provided to the secondary sector.

The most obvious form of cost reduction is the development of school textbook banks providing textbooks on loan to students. This enables the initial costs of supply to be amortised over the period of assumed book life (a minimum of six years in Uganda?), provided only that financial support is provided for the initial costs of investment, because few, if any, secondary schools currently have the financial resources to invest in the total basic stock required to support a textbook loan scheme.

2.10 Other Forms of Textbook Cost Reduction

There are 2 other concepts, which should be added to the textbook loan scheme in order to reduce the basic per student costs of full textbook provision. These are:

- a) The introduction of conscious pressure on prices by the introduction of an approved textbook list for secondary education based on an evaluation system where price (side by side with other educational and pedagogical criteria) is a critical factor in the achievement of approved status. Such a system could be expected to reduce current textbook prices by a conservative 20%¹⁰
- b) A smaller curriculum with fewer subject requirements and the encouragement of local publishing based on local overhead costs, particularly of junior secondary textbooks by specifying local content requirements wherever it is reasonable to do so, would go some way to reducing current textbook costs¹¹

3. SECONDARY SCHOOL LIBRARIES, READING BOOKS AND REFERENCE MATERIALS

3.1 Secondary School Library Rationale for Uganda

Because schools are seriously short of basic textbooks there was little priority in 2002 in most of the schools visited for the development of school library stocks of appropriate fiction, supplementary curriculum support materials and basic reference books¹². The wide range of contemporary African fiction that has emerged over the past 25 years was reported to be absent in any quantity from almost every secondary school in the country. Fiction, where it existed in 2002, was often old stocks of reprints of abridged, classic 19th and 20th century English literature. Much of the limited library stock was based on

¹⁰ When a similar scheme was introduced at primary level in 2002 the immediate price reduction was over 65% with textbooks which also demonstrated significant improvements in both the use of four colours and the physical production specifications. The approved book list effectively increased the purchasing power of the MOES by over 200%

¹¹ It should be noted that such a policy is not intended to exclude non-national publishers, but to encourage all publishers to originate or adapt for local curricula requirements. Such a policy is probably impossible with the current uncertainties in secondary textbook sales but could be easily realised with the greater investment security generated by more reliable support to textbook provision

¹² In many secondary schools a school library was often a collection of multiple copies of a limited number of textbooks and did not include any of the conventional library support items such as reading, supplementary, curriculum extension and reference materials

donations of second hand books, many of which were out-of date and of only very limited relevance. As a result very few schools had anything approaching a conventional library. This had two serious consequences which were reported in the 2002 report

- Most students read very little, largely because there was very little of interest available for them to read. This lack of basic reading was a matter of considerable concern to many secondary school heads and teachers because it was perceived to have an adverse impact on the development of language comprehension and the acquisition of basic skills such as vocabulary acquisition, clear writing etc and thus in subject mastery in any subject
- Secondary school graduates had no practice in the application of basic library skills. Thus, a large majority of students did not know how to use library catalogues or to access basic reference books and did not know how to research needed information in either print or electronic formats. When they progressed to universities or higher education institutions they had no skills or previous background in research or information access. If the 21st century is the 'information century' then most secondary school students in Uganda are not being provided with the basic skills to access and use information. This situation was confirmed at Makerere University where faculty staff and librarians reported that a majority of students often could not even use a book index. The advent of ICT and future access to the internet and the absolute need for information access and evaluation skills simply underpins the urgent need to consider the upgrading of libraries alongside a reformed textbook policy

3.2 Perceived Value of School Libraries

However, the school library components of the 2007 survey did indicate some interesting changes from the 2002 survey. Thus the 11 surveyed schools in 2007 rated the availability of a good school library somewhat higher than the availability of adequate textbook supplies, although both were ranked highly by schools as predictors of improved student performance.

3.3 Secondary School Library Conditions

Table 8, below, summarises the results of the 2007 survey on the condition of school libraries in the secondary schools visited

Table 8: School Library Condition (2007)

% of Stock considered to be relevant and up to date	51%
% of Stock considered to be in poor physical condition	17%
Schools with Weatherproof Libraries	80%
Schools with Secure Libraries	100%
Schools where Libraries were generally clean and tidy	90%
Libraries with Internet Available	10%
Libraries with Photocopying facilities	10%
% of students that regularly use the Library?	31%
Schools that allow library borrowing	100%
What penalties for damaged or lost books	Replacement -100%

Overall, the results of the 2007 survey were more encouraging than the results of the 2002 survey so far as school libraries were concerned. Most schools were aware of the benefits in terms of student work and support and

most schools were making an effort to provide a library service. Libraries were generally (but not universally) of a reasonable physical size, were mostly weatherproof and were secure. Most were clean and tidy although shelving and re-shelving of books obviously needed attention. Only one school (in Kampala) had internet and photocopying facilities available in their library, although all schools wanted these items. All schools encouraged borrowing, usually for one week at a time (or less) and required the replacement of the lost book as the basic penalty for loss and serious damage. None of the 11 schools visited had a trained librarian and the job was handled either by a junior teacher(s) or by a clerk. 6 out of 11 schools encouraged students to assist in the management of the library.

Library usage was disappointing with an average of only 31% of students regularly using the library. The main reason given was lack of relevance and interest of much of the stock. Over the 11 schools it was estimated that only 51% of current school library stock was relevant and current.

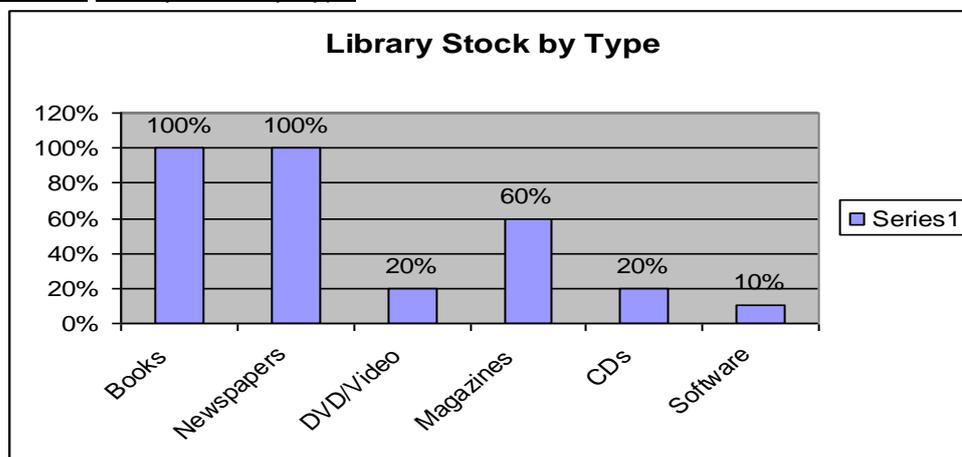
3.4 Secondary School Library Stock

Chart 3, below, summarises the nature of current library stock in the 11 schools surveyed in 2007.

All schools had book and newspaper collections. 7 out of 11 schools had magazines. Two schools maintained DVDs/Videos (largely for student entertainment purposes) and one school maintained a little software in the library. However, every school had ambitions to develop a more professional multi-media resource centre for the benefit of both students and staff. Table 9, below, summarises school library management issues in the 11 schools

The reported annual % of lost and seriously damaged library stock was alarming with minimum figures of 1% of stock, a maximum of 45% and an average of 15%. Any library system in Uganda is probably unsustainable with loss levels on this scale. This probably reflects the lack of trained librarians and the lack of good management systems, which in turn is a consequence of lack of relevant stock and lack of use of the library by a majority of teachers and students

Chart 3: Library Stock by Type



3.5 School Library Management and School Library Problems

Table 9: School Library Management System

Are there adequate management systems in place for the library?	
Stock Inventory	100%
Library Catalogue	0%
Lending and Returning systems	100%
Library Fines	10%
Deposits	10%
Are Library Books	
Stamped with a School Stamp	100%
Dated	50%
Catalogued	0%

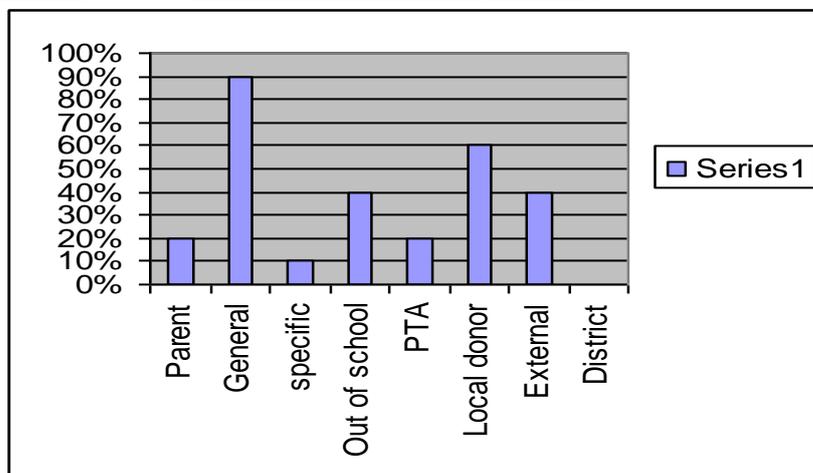
The main problems with the school library, identified by the surveyed schools were

- Lack of relevant stock – in both print and electronic formats
- Too little stock
- An over—reliance on stock donations, which were generally of irrelevant or only marginally relevant materials
- Limited subject coverage of MoES donations
- Lack of a trained librarian
- Getting students interested in using the library
- Inadequate space
- Limited furniture
- Limited bookshelves
- Delays on students returning books
- Students losing, stealing or damaging books
- Tearing pages from books by students
- Lack of knowledge and facilities to repair damaged books

3.6 School Library Funding

Chart 4, below, shows the main sources of funding used by schools for their library stock and running costs.

Chart 4: Sources of School Library Funding



90% of schools (10 out of 11) used some of their general operational budget on some aspect of school library funding (this is a marked improvement on the 2002 results). Local donors were also considered important in 7 out of 11 schools. GOU and external donor donations were important in 5 out of 11 schools. Parents/PTA were not considered very significant and none of the 11 schools had ever received anything for their library from a district education office.

3.7 Summary

There appears to have been an increased awareness of the importance of a good basic school library among the surveyed schools in 2007 and an increasing number of schools were making some (mostly inadequate) level of financial provision for school library space, furniture, equipment and stock. Among the most significant current secondary school library problems were:

- The lack of trained school librarians (exacerbated by MOES unwillingness to see trained school librarians as essential staff members)
- The lack of a clear vision of what a school library should be and how it should be used as a central part of teaching and learning.
- The lack of funding
- The lack of MOES support for the concept and effective operations of a school library

From the point of view of schools and student performance standards the main concerns were:

- A continued decline in reading interest and reading standards, which had an impact on subject mastery in all subjects at all levels
- A widespread lack among both teaching staff and students of the most basic information access skills
- An inability to access information and to use and evaluate it in either print or electronic formats, which was widely considered to be a major problem in higher education

Most schools considered that the absolute minimum school library provision, should probably cover the provision of stocks of basic African contemporary fiction to encourage student reading plus some core reference works (Dictionaries, atlases, encyclopaedias etc).

It should also be noted that the absence of effective libraries in most secondary schools also means that there is an absence of trained librarians, which in turn reinforces the lack of basic information skills

4. THE GROWTH OF ICT IN UGANDA SECONDARY SCHOOLS

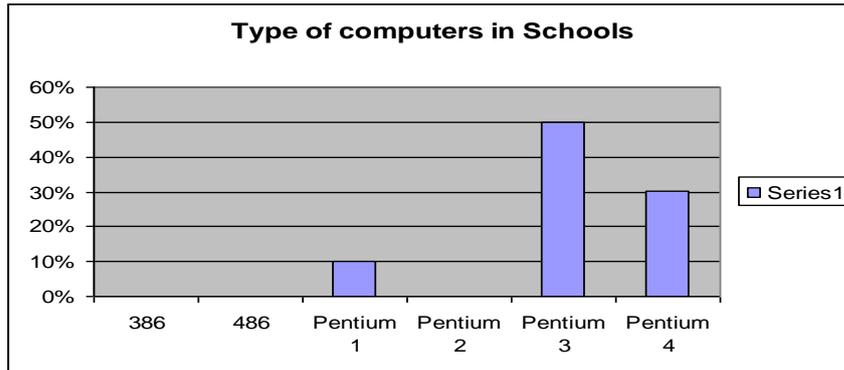
4.1 Current Situation

In 2002 there was comparatively little ICT development in secondary schools. It was at that time an issue of interest to secondary schools but only 2 out of 35 schools surveyed had any significant numbers of computers available to students, although some schools (about 20%) had one or two computers for staff and management purposes. In 2007 the situation seems to have

changed quite radically. The following were the results of the 2007 ICT survey.

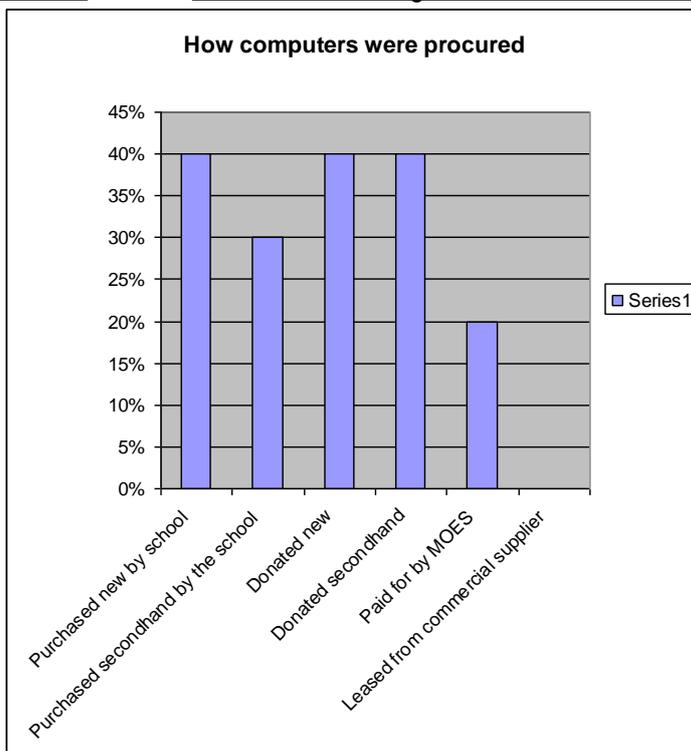
All 11 schools had some computers. The numbers varied from 8 to 61 for student use. The average across 11 schools was 23 computers per school. 9 out of 11 schools had a dedicated computer room, although not all of these were well-designed or met basic health and safety standards. [Chart 5](#), below, provides information on the type of computers in schools

Chart 5: Types of Computer in Schools



80% of the computers in use in the 11 schools were either Pentium 3 or Pentium 4 models. Only 10% were Pentium 1 models and trace percentages of 386s, 486s and Pentium 2 models were recorded. Basically, this means that the computer hardware available to schools is quite up-to-date. [Chart 6](#) provides details of the source of funding for the computers, which also produced some surprising results

Chart 6: Sources of Funding for Hardware Procurement



70% of computers were purchased by the schools out of operational budget, either new or second hand, of which 40% were purchased new. A further 40% of schools had been donated new computers and a further 40% of schools had been donated second hand computers. Only 20% of schools (3 out of 11) had received any computers funded by the MoES. There was no evidence of commercial leasing of computers by schools from private leasing companies.

Out of the 7,130 students covered by the survey, 4,364 were attending computer studies classes (61%)

Only 1 of the 11 schools had effective internet connectivity via a VSAT connection donated by an old boy of the school. 2 other schools had dial-up connections using analogue telephone lines, which provided limited email access but was of little use for serious data access or downloading curriculum support materials

In terms of peripherals, 9 out of 11 schools had usable printers, only 4 out of 11 schools had UPS hardware (a dangerous situation when electricity supplies may be liable to power surges and unexpected shut-downs or brown-outs). Only 1 school had an LCD data projector and only 4 out of 11 schools had an air-conditioned computer room

Only one school (in Kampala) had a current and operational maintenance and servicing agreement. All other schools lacked local maintenance services and relied upon a combination of (a) computer-interested and trained staff members, (b) old boys or parents with some computer skills, or (c) travelling to Kampala with the hardware to consult specialist help. This last is both expensive and damaging to the hardware on many of the roads in Uganda.

4.2 Summary

- 9 out of 11 schools have a dedicated computer room
- 8 out of 11 schools are actively using computers for teaching and learning
- Only 1 out of 11 schools has an effective internet connection
- 9 out of 11 schools were actively looking for an effective and reliable ISP
- Over 80% of computers in classrooms were Pentium III or newer standard
- All 11 schools were using Windows OS and MS Office
- 5 out of 11 schools had active computer development programmes funded from school fees and general operating budgets
- In 9 out of 11 schools all S1 students received compulsory computer studies classes. 2 out of 11 schools provided compulsory classes in computer studies for S2 and S3
- Most schools attempted to provide general tuition to all students in at least MS Office

4.3 Observations

- The skill levels of teachers providing tuition in computer studies was not easily assessable in the time available.
- The extent to which ICT was used for subjects beyond Computer studies was also unclear.
- No school had any clear idea of the future direction of the curriculum for computer studies or for the use of ICT as a tool in the teaching and learning of other subjects
- There was no obvious data administration policy in place in any school. Teachers did not have a clear idea of what was being maintained on the computer by teachers or staff
- No security measures on MS OS appeared to have been applied
- No school was very clear about the recurrent operational costs of ICT and the TCO had clearly not been calculated
- School administrators believed that connectivity was expensive but 7 out of 11 schools had never sought pricing information from an ISP
- 10 out of 11 schools had no maintenance or servicing agreement
- No sign of effective computer housekeeping – e.g, dust and temperature control, anti-virus procedures, seating and lay-out, file management systems etc
- There were no standard health and safety guidelines available for schools
- There was no storage facility in any school for a Media Library
- Only 20% of schools had UPS and even this did not cover all the computers in the schools concerned
- All schools complained of power surges and failures
- Only one school had a back up generator
- One school had no reliable power at all
- Computer-related power costs had not been budgeted in any school
- No evidence of any interest in, or knowledge of, low energy 'green' computer

4.4 ICT Related Recommendations

While there is a great deal of interest, activity and expenditure on ICT in secondary schools it also seems to be clear that a great deal of this is almost completely uninformed in most schools and that there is an urgent need for MoES policy and guidance on the most basic issues, such as installation guidelines and rules, minimum network management requirements, basic principles of computer room design and layout, maintenance agreements and simple health and safety rules. Other issues that urgently need to be addressed are basic housekeeping requirements, file management systems + provision of information on investment, replacement and operational costs etc

The following relatively straightforward and quite low cost recommendations could save a lot of time, money and angst over the next few years if developed and applied nationally

- Provide a "Code of Best Practice and Key Management Guidelines for all secondary schools
- Provide Health and Safety Guidelines and Minimum Installation

- Requirements for all schools
- Develop PRESETT and INSETT modules for (a) general ICT housekeeping; (b) Computer administration; (c) Computer security, and (d) using computers as a support to teaching and learning across the curriculum
- Publish lists of ISPs with contact details and information on “Who, Where, What and How Much”
- Develop a pilot scheme(s) for Connectivity throughout Uganda utilising latest and cost-effective technologies

5. EMERGING GOU/MOES UPPET POLICIES

In November 2005, the President of the Republic of Uganda announced the GOU’s intention to introduce Universal Post-Primary Education and Training (UPPET). As an immediate follow up, the Education Sector working through the Education Sector Consultative Committee (ESCC) and the Top Management of the MOES prepared a draft write-up, which defined what would be entailed in the proposed UPPET policy in terms of:

- (i) current initiatives of Government towards the enhancement of universal access to UPPET;
- (ii) the rationale for introducing UPPET;
- (iii) targeted beneficiaries;
- (iv) the roles and responsibilities of stakeholders including the private sector;
- (v) the implications of the policy (i.e. issues of sustaining the UPE, curriculum, teacher requirements, provision of instructional materials, physical infrastructure, etc);
- (vi) financing; and
- (vii) likely challenges.

The draft write-up was reviewed and refined by an Inter-Ministerial Technical Task Force chaired by MFPED. Cabinet approved the UPPET policy in May 2006. A National Stakeholder Consultative Conference held in October 2006 endorsed the refined UPPET policy and implementation arrangements and implementation of the program was launched in February 2007, starting with Senior One

Implementation of the UPPET program is now in its second year covering Senior One (S1) and Senior Two (S2). The program is being implemented in a total of 791 Government aided schools, catering for 120,954 students, and 363 private schools, catering for an additional 40,595 students. This represents over 73% of the total projected S1 enrolment of 223,894 and represents an increase of over 14% before the introduction of UPPET. A threshold grant of USh7,000,000.00 is being disbursed to each of the 791 government aided secondary schools and USh5,000,000.00 to 64 seed secondary schools. Variable grants for both term 1 and term 2 have been disbursed to all government aided secondary schools. A grant of USh47,000.00 per student per term has been disbursed to 363 private secondary schools participating in the implementation of the UPPET program.

Also, collections of textbooks in key subject areas including Science, Mathematics and English language have been already distributed to these seed secondary schools.

Among the identified key challenges to be faced by the program are:

- The pedagogic and cost implications of an overloaded curriculum
- The optimal use of key inputs including instructional materials

Of specific relevance to the development of reform proposals for the provision of instructional materials are emerging policies in the following areas:

5.1 Secondary Curriculum Policies

A review of the current secondary school curriculum¹³ has been completed and the report has been presented to government. The review proposed the review and re-design of the current secondary curriculum and also the restructuring of the secondary education sector in Uganda to provide for 9 years of primary education followed by “...a variety of diversified and non-compulsory education tracks....including the existing academic track of S3 and S4 and existing options of vocational and technical training institutions (rather than at secondary schools)”. The MOES has accepted the need for a comprehensive review of the secondary curriculum but has deferred the need for a system re-structuring¹⁴.

The MOES considers that the secondary curriculum is in urgent need of review for the following reasons¹⁵:

- (a) Absence of a coherent secondary curriculum framework. Uganda has clearly defined overall goals for secondary education. However these goals are inadequately reflected in the current secondary syllabuses and exams. This has led to examination-driven teaching and the neglect of many key skills and competencies because they cannot be readily assessed. The MOES believes that examinations should serve the curriculum rather than the other way round. New assessment methods are required to better assess key skills and competencies. In summary, a reformed secondary curriculum should better reflect Uganda’s overall goals for secondary education.
- (b) Curriculum overload. The current secondary curriculum is overloaded and the administrative decision to reduce the overall number of subjects (from 42 to 22) has not solved the problem. There is also a significant duplication within and across subjects and particularly in the lower grades of secondary where is a considerable overlap with the curriculum content of the top primary grades.
- (c) The Need to Separate Exams from the Curriculum. A major issue with the existing curriculum is that there is no separation of the curriculum from the examination process. This means that the examination

¹³ Clegg A, Bregman J and Ottevanger W (Sept 2007) Uganda Secondary Education and Training Curriculum, Assessment and Examination Roadmap for Reform The World Bank for the MOES

¹⁴ Letter of November 1st 2007 from the Permanent Secretary, MOES to the Uganda World Bank Country Manager

¹⁵ Education Planning Dept of the MOES (January 2008) Implementation of Universal Post Primary Education and Training (UPPET)

decides what is taught and how it is taught. The new secondary curriculum framework must ensure that curriculum documents are distinct from teaching and examination schemes and that teaching schemes should be further elaborated into teachers' guides, textbooks and other teaching and learning materials.

- (d) Quality of learning and modern pedagogy. The MoES believes that the knowledge and skills of current secondary graduates in Uganda should be better matched with international quality standards. A secondary school quality study (2003) indicated poor student achievement, especially in Mathematics, English and Sciences and high failure rates. The focus of a redesigned secondary curricula for the lower secondary cycle should address the full range of knowledge and competencies required by Uganda's economy and be in line with international benchmarks (for example, OECD-PISA and the TIMSS). Obviously adopting modern pedagogical methods should play a major role in the implementation of the new secondary curriculum.

The UPPET Implementation Task Force has noted that a reduction in the maximum number of subjects taught is a crucial efficiency measure but this can only fully take place in the medium term (i.e. a period of 2-3 years) after the review of the secondary curriculum has been completed. However, it strongly proposes capping at 12 as the maximum number of subjects offered in any school as the most key cost-saving measure. A *Simulation Costing Model* clearly demonstrated the effect of the number of subjects taught on the national teaching load¹⁶.

The Task Force further noted that the number of subjects offered also impacts significantly on the cost of instructional materials provision¹⁷. Because the maximum number of subjects offered in any given school was also found to be a major cost driver of demand for teachers and the wage bill size the Task Force viewed this as a potential area to be considered as a cost-saving measure.

As a result of the above it has been proposed that in order to realise efficiency savings and still deliver quality and relevant education, the number of subjects offered by any school should be reduced to 14 out of a curriculum menu of 22 subjects (i.e. a reduction from the current menu of 42 subjects). From this menu of 14 subjects per school any student in S1-S4 should be able to select 10 subjects comprising 8 compulsory subjects and 2 optional subjects and that at least 8 of the subjects should be examinable.

In the medium term, the curriculum will be reviewed to reduce the number of subjects offered in any government 'O' level secondary school through integration to a maximum of 12 subjects as a strategic cost-saving and

¹⁶ For example, a reduction in school subjects from the current 19 to 12 leads to a huge saving of USh45.256 billion in the annual wage bill based on an average monthly salary of USh565,009.00 for graduate teachers and UShs321,913.00 for diploma teachers, if recruited in a ratio of 1:1.

¹⁷ The simulation costing demonstrated that at a student/book ratio of 1:3 a reduction in the number of subjects taught from 19 to 12 leads to a reduction of USh18.891 billion i.e. from USh63,761 billion to USh44.870 billion.

efficiency measure. In the interim, all schools should offer a maximum of 14 subjects.

The reviewed curriculum menu¹⁸ should therefore be the 22 subjects listed below from which 14 subjects (including the required compulsory subjects) will be selected by schools:

1. English Language;
2. Mathematics;
3. Physics;
4. Chemistry;
5. Biology;
6. History;
7. Geography;
8. Agriculture;
9. Literature in English;
10. Religious Education (CRE/IRE);
11. Art and Craft;
12. Music;
13. French
14. Arabic;
15. Luganda;
16. German;
17. Latin;
18. Kiswahili;
19. Business/Entrepreneurship Education;
20. Home Management;
21. Industrial Design; and
22. Power and Energy.

5.2 Library Reforms

The MOES has accepted the role of secondary school libraries by:

- a) accepting that a Library Assistant is an essential non-teaching staff member; and
- b) specifying standard library building designs for new secondary schools (or for refurbished secondary schools currently without libraries), which will be constructed in a phased manner as and when funds become available¹⁹;

However, apart from these two basic (but important) policy decisions current policy documents do not specify either the desirable school library stock content or the future role of secondary school libraries in relation either to curriculum reforms or to basic approaches to teaching and learning

No budgetary provision for school library upgrading or stock procurement has been provided for in either the threshold grant or the variable per capita grant

5.3 Instructional Materials

¹⁸ MOES (Oct 2006) Draft UPPET Policy Positions – (Annex 8)

¹⁹ MOES (April 6th 2006) Key Policy Proposals in Implementing the UPPET Reforms – Agenda Item

Policy documents specify that a holistic approach to curriculum implementation requires that it should be supported by the adequate provision of instructional materials so that the UPPET program will also provide teaching and learning resources that will include textbooks, teaching aids, ICT resources, library reference books etc. As a result US\$6,000,000 will be contributed towards the purchase of textbooks per year per school to operationalize the book policy through which different publishers will be identified to provide the various materials. It is intended that this intervention will improve the student/book ratio from 6:1 to 3:1 for S1. The division of expenditure between textbooks/teachers' guides on the one hand and teaching aids, ICT resources and library stock has not been specified and is presumably left to the decision of individual schools. This may well create practical problems because it has already been demonstrated (see [Section 2.](#), above, that a majority of schools outside Kampala and a handful of provincial centres have little or no information about either textbooks or other teaching and learning materials and are in urgent need of guidelines, support and assistance in the selection of materials

The UPPET Implementation Plan also suggests that well-established government aided secondary schools (about 30%) have enough instructional materials and should therefore not be provided with textbook and library support funding.. The results of the instructional materials surveys in 2002 and 2007 would suggest that this policy decision should be reconsidered. It is certainly true that the well-established government-aided secondary schools tended to have better supplies of textbooks and other teaching and learning materials than most other secondary schools (including the best private secondary schools). However, none of the best government-aided secondary schools surveyed had *adequate* supplies of textbooks and library materials and cutting them off from UPPET funding certainly would have a detrimental impact on the quality of education that they can offer. It is therefore recommended that textbook and library support finance should be extended to all schools covered by the UPPET programme.

The expected student/textbook ratio and the initial school requirements upon the introduction of UPPET were derived on the basis of the following assumptions.

Table 10: Determining instructional materials requirements

Book to student ratio of 1:3 for S1	0.3
Number of core textbooks to be accessed by every student per subject	5
Total book titles required for S1	1,569,383
Unit cost per textbook for S1 books in US\$	20,000
Total cost per student for S1 books per year – US\$.	31,111

Table 11: Determining UPPET BTVET training materials

Assuming book to student ratio of 1:3	0.3
Core textbooks to be accessed by every student per course	5
Minimum no. of book titles per course	4
Total book titles required for Year 1	67,660
Unit cost per textbook	30,000
Total cost per student for Year 1 books per year	50,000

The Task Force has also proposed the establishment of a vetting Task Force to prepare the list of the required instructional materials for secondary and BTVET schools

5.4 UPPET Financial Proposals

At present, a threshold of US\$7 million per school per term is provided to every school regardless of enrolment size and location, and a variable per capita grant of US\$15,621.00²⁰ per student per term for secondary schools and US\$68,733.00 per capita for technical schools, farm schools, Community Polytechnics and Vocational Training Institutions²¹

The variable per capita grant of US\$15,621.00 per term is broken down into separate budget categories in Table 12, below. It is noticeable that no specific provision for library procurement is listed in this table.

Table 12: Breakdown of variable cost per S1 student per term

<i>Variable cost per school per term (using historical data):</i>		
1	Duplication machine maintenance	400,000
2	Computers/ type writers for lessons	1,500,000
3	Duplicating paper for examination and daily use	2,000,000
4	Ruled paper	1,500,000
5	Manila and markers	200,000
6	Consumables for practical subjects	1,300,000
7	Chalk and pens	200,000
8	Teachers lesson plans books	480,000
9	Teachers preparation books	250,000
10	Record of sheets	180,000
11	Students' certificates	150,000
12	Utilities (water, electricity & telephone)	700,000
13	Sewerage emptying	450,000
14	Laboratory equipment repair	500,000
15	School furniture repair and replacement	500,000
16	Total variable cost per school per term	10,310,000
17	Variable cost per student per term	15,621

The above rates were derived from school budgets presented to MOES for analysis. A sample of 10 school budgets was analyzed. The cost centres included in the variable cost provision were found to be the most common. It is significant that none of the cost centres in the 10 sample school budgets appeared to include library expenditure.

Table 13: UPPET Cost Implications and Funding Gap

Item description	Preparatory Year (2006)	Academic Year 1 Cost (2007)
A. Secondary sub-sector		
a. Tuition/capitation grant	-	45,898,937,936
b. Salaries for teaching staff	-	88,017,278,179
c. Salaries for non-teaching staff	-	17,724,000,000
d. Recruitment costs	-	800,777,470
e. Provision of physical infrastructure	-	-
f. Instructional materials	-	53,008,566,439
g. Examinations	-	-

²⁰ The Task Force recommends US\$29,420.00 per student per term

²¹ Ibid

Item description	Preparatory Year (2006)	Academic Year 1 Cost (2007)
h. Public-private partnership	-	39,440,444,616
Total Cost - Secondary sub-sector	1,160,904,432	244,890,004,641
MTEF provision - Secondary sub-sector		94,295,000,000
Funding gap	1,172,606,149	138,233,761,425
B. BTVET Sub-sector		
a. Tuition/capitation grant	-	4,990,729,986
b. Salaries for teaching	-	513,600,000
c. Salaries for non-teaching staff	-	237,600,000
d. Provision of physical infrastructure	-	-
e. Instructional materials	-	11,311,515,000
f. Examinations	-	-
j. Public-private partnership	-	-
Total Projected Cost - BTVET		16,539,844,986
MTEF provision - BTVET		
Funding gap - BTVET		16,539,844,986
C. CROSS-CUTTING ISSUES		
a. Planning activities		2,500,000,000
b. Education standards		700,000,000
c. Curriculum issues		2,325,800,000
Total Projected Cost - Cross cutting issues		5,525,800,000
MTEF provision - Cross cutting issues	-	-
Funding gap - Cross cutting issues		5,525,800,000
TOTAL PROJECTED COST - UPPET		271,050,152,508
TOTAL MTEF PROVISION - UPPET	-	94,295,000,000
TOTAL FUNDING GAP - UPPET		176,755,152,508

The Implementation Plan also specifies that “...parents and guardians shall provide lunch, uniforms, stationery and medical care. Parents are also encouraged to provide the core textbooks where the school has not provided them in adequate numbers”

It is also specified that government will provide basic infrastructure, instructional materials and basic equipment to the participating schools/institutions within the available resources;

5.5 Key Implications from Current Policy Trends

The following important implications for instructional materials provision reforms can be derived from the current UPPET policy initiatives described above:

- The decisions to restrict the number of secondary curriculum subjects and to recognise the problem of curriculum and syllabus content overload are important cost reduction principles, which underpin the reform proposals for instructional materials provision
- The recognition that the current curriculum is fact-based and dependent on memory recall assessment/examination systems and the proposal that a skills/competencies based curriculum/syllabuses need to be created are supportive of student centred learning (SCL) approaches and the development of problem solving capabilities and higher order thinking skills. These, in turn, emphasise the importance of the development of good library and information services in secondary schools in order to support activity/discovery based learning styles, student research skills and project/small group work which are

at the heart of skills/competency-based learning objectives and outcomes.

- The lack of clearly defined and identified school library development budgets requires the development of a clearly identified school library rationale and, eventually, a cost-effective school library stock profile that ideally incorporates both print and electronic resources. In the mid to long term this will depend to a large extent on the emergence of specific secondary curriculum concepts (for example, will the secondary curriculum review require ICT to be taught as a subject only or will it require ICT to be used as a tool in the teaching and learning of other secondary school subjects; this fundamental decision will have implications for the nature of school library materials and facilities (e.g. Internet connectivity) that may need to be provided and thus the operational and cost structures of school libraries)
- The recognition that secondary curriculum reform will require from 2-5 years to implement underlines the need for both medium to long term instructional materials reform policies and also the need for short term interim solutions
- The decision to establish a vetting committee to decide on the textbooks and other instructional materials to be supplied provides an opportunity to establish methodologies, criteria and instruments to support the introduction of a cost effective instructional materials evaluation and approval system
- The decision to provide a lump sum annual textbook budget to schools irrespective of school enrolment suggests that current financing strategies will tend to disadvantage larger schools
- The decision to exclude existing well-established government-aided schools from textbook support funding on the grounds that they are already well-provided with textbooks, teachers' guides and other instructional materials is almost certainly based on a false premise and it is recommended that this decision should be reconsidered
- The lack of specific library procurement budgets in the variable budget allocation will probably act as a disincentive for schools to invest in school libraries without further guidance
- The current MOES policy initiatives hardly mention the role of ICT as a source of information and as a stock requirement medium, although there are budget categories within the variable cost component that could be used to support some aspects of ICT investment, recurrent and associated costs
- The schedule for the introduction of a new or reformed curriculum must allow sufficient time for the development (or the selection from existing titles if they are suitable) of the new textbooks required to support the new curriculum and subject syllabuses. If subject syllabuses are not made available to publishers and schools early enough, and if sufficient lead time is not built into the timetable for reform, then it will not be possible for publishers to develop the new textbooks to support the new syllabuses. Over-ambitious scheduling will lead to the launch of a new curriculum and new syllabuses without adequate support from relevant and appropriate textbooks and other instructional materials. The minimum lead time for the development of new textbook titles

against a new curriculum is probably 4-6 months, although all publishers and authors would ideally like up to a year.

- It is probably inevitable that new books will be required for most subjects as a result of the curriculum review because of the numerous changes that have taken place in the socio-economic, political and technological environments both at home and internationally. However, existing textbooks will continue to be useful and in most cases can continue to be used as reference materials in a developing school library.
- There is a clear implication that parents will still be required to support textbook (and library?) purchase in the event that current financial allocations are insufficient

6. ENROLMENT STATISTICS

The following enrolment statistics provided in Tables 14 & 15, below, have been derived from the *Simulation Costing Model* provided by the Educational Planning Department (EPD) of the MOES during the December 2007 consultancy visit

Table 14; Secondary Enrolment Statistics ('000s)

Grade	2008-9	2009-10	2010-11	2011-12	2012-13	2013-14
S1	528.3	608.8	682.6	723.2	744.2	774.0
S2	384.0	492.1	574.3	651.3	698.3	726.6
S3	216.7	345.8	449.7	531.6	609.9	661.7
S4	192.4	198.5	317.9	419.2	501.8	582.2

Table 15; BVTET Enrolment Statistics ('000s)

Grade	2008-9	2009-10	2010-11	2011-12	2012-13	2013-14
T1	58.8	60.7	96.6	127.7	153.1	177.7
T2	58.4	61.8	63.8	100.8	133.5	160.4

The enrolments in Tables 14 and 15, above are the basis for the cost calculations included in the Spreadsheets in Appendices 3 and 4. Total enrolments have been used for these costings but it is easy to provide alternative costings by inserting alternative enrolment statistics into the spreadsheets. Thus, if the MOES decides that only 75% of the current secondary cohort should be provided with textbooks and other instructional materials the alternative enrolment totals can be inserted into the spreadsheets

7. INSTRUCTIONAL MATERIALS RECOMMENDATIONS

The following recommendations are proposed for the use of MoES funding in support of textbook procurement:

7.1 Textbooks and Teachers' Guides

- a) Introduce a competitive, transparent and objective system of textbook submission, evaluation and approval for the new secondary curriculum, according to subjects and form levels. This approved list would assist local booksellers in their stocking decisions, thus ensuring that the right books were available at the right price at the right time. The approved list would also assist schools in their selection decisions, since very few schools are fully aware of the range of appropriate alternative titles available to them. This will be a particular issue when the new secondary curriculum is introduced
- b) Ensure that price is one of the key factors to be included in the evaluation criteria, thus ensuring that there is downward price pressure on all suppliers/publishers
- c) Opt for a limited rather than an open-ended list of approved textbooks²². Limited lists require publishers to compete hard and thus emphasises the downward pressure on prices. Open-ended lists do not apply the same pressure on price and tend to result in higher prices than limited lists
- d) Publish and circulate the approved book list regularly or as new titles (.i.e for higher grade levels) are added
- e) Abandon supplier oriented funding, because it cannot meet school needs accurately while simultaneously creating additional administration activity and cost
- f) Provide schools with purchasing power via direct cash transfers or via per capita allocations accessed by order forms for bulk purchase and distribution by the IMU (consumer based funding). This will guarantee that all textbook funding is spent on those titles that schools have identified as their highest priorities. It will prevent the wastage of scarce resources caused by the supply of titles by the MoES, which many schools may not want or need
- g) Empower schools to select the textbooks that they need from the list of MoES approved titles, thus ensuring the best use of all funding
- h) If price is a factor in evaluation, then schools could be provided with annual lists of textbooks and agreed maximum prices. Alternatively, if central purchase is considered to be appropriate then an order form system similar to that previously and successfully operated by the IMU for primary schools could easily be introduced²³.

²² A limited approved list is one where a maximum number of titles is approved. In general the best three (or four or five) evaluated titles that meet all of the minimum approval criteria are approved for a fixed period corresponding to the assumed book life (in this case 6 years). A repeat evaluation is introduced at the end of the fixed approval period

²³ Purchase via the local retail book trade would have a beneficial impact on the local book business and would further strengthen the re-development of a national bookselling network operating throughout the country. However, in the short term the main educational booksellers are heavily concentrated in

- i) All secondary schools in Uganda should adopt a textbook loan system as the cheapest method of providing basic textbooks for all subjects at all grade levels
- j) If so desired, modest rental fee contributions for students could be introduced in order to make existing GOU funding go further if so required. The textbook loan/rental system should be managed and operated at school level and any collected rental fees should be maintained at school level. Nevertheless, any rental scheme should be designed and supervised at a national level
- k) An operational national textbook loan/rental scheme could be made a fundamental condition of funding support to the private sector secondary schools

7.2 School Libraries

- l) Special attention should be given to the development of basic library facilities in secondary schools and to the provision of special training in the running of school libraries and textbook loan collections
- m) Provision should be made for collections of contemporary fiction, basic reference books, curriculum support materials, ICT resources and internet access charges in school libraries
- n) Minimum school library stock profile needs to be developed comprising at least (a) atlases; (b) dictionaries; (c) a good general encyclopaedia; (d) a good collection (250) of relevant and age and gender appropriate contemporary African fiction to encourage regular reading among secondary school students; (e) basic curriculum support reference materials on a priority subject basis
- o) School Library management, usage and collection development guidelines need to be created

7.3 ICT Development

- p) The TCO for secondary ICT provision for Uganda secondary schools needs to be calculated and used as the basis for the creation of a sustainable national ICT strategy
- q) A national secondary ICT strategy urgently needs to be developed.
- r) ICT Guidelines and basic information need to be developed by the MOES and made widely available to all secondary schools in order to support effective and sustainable ICT provision in line with curriculum requirements
- s) A national connectivity pilot project should be designed and launched by MOES in association with the Ministry of Telecommunications
- t) Subject specialist working groups should be established to review free websites and free internet software resources and should make these available either online or via disk delivery or via information provision to all secondary schools
- u) Publishers of textbooks submitted for evaluation and approval should be required as part of the textbook/teachers' guide submission specifications to identify relevant websites, databases, information sources and gratis internet software for use in association with textbooks as part of a general

and around Kampala. Thus a combined system could be developed in which schools could opt either to buy from local booksellers at mutually agreed and advertised prices or to order via the IMU

teaching and learning strategy

7.4 Interim Strategies until New Curriculum Textbooks are Launched

- v) Textbooks supplied to secondary schools now to fulfil interim needs can be absorbed usefully into school libraries as subject reference and curriculum support materials, even if made redundant by a new curriculum and new syllabuses.
- w) Section 9, below, provides a range of costed options for interim textbook supply solutions for both general secondary schools and BVTET institutions until a new curriculum and syllabuses are launched and new textbook specifications are developed.

7.5 Support to Private Sector Secondary Schools

- x) Private sector secondary schools or BVTET institutions can be supported via initial investment costs in textbooks based on a matching fund approach and a requirement to run textbook loan/rental schemes according to nationally developed guidelines
- y) Matching funding should be calculated according to the same student/textbook ratios applicable to government, government aided or supported private sector schools and institutions
- z) Matching funds can be based on a 1 for 1 basis or can be on the basis of other less generous ratios according to the availability of funding and developing MOES policies towards private sector providers of secondary education. Most private secondary schools will be disadvantaged by the provision of free (or very cheap) textbook supplies to other secondary schools and will thus be motivated to accept whatever reasonable support can be provided by the GOU/MOES
- aa) The offer of matching funding will enable non USE private secondary schools to participate in the national upgrading of secondary textbook and school library provision but at a cheaper rate than for USE schools. A matching fund strategy will also require that non-USE secondary schools must make a conscious investment of their own in upgraded standards of instructional materials provision as a basic condition of access to GOU/MOES funding
- bb) Matching funding for non-USE private secondary schools should be limited to initial investments for S1 to S4 only and should not be continued into the replacement cycle

7.6 General

- cc) In-Service Training on library management, ICT use and management, textbook loans/rentals, instructional materials storage and conservation etc all need to be made available as soon as possible in order to support cost effective instructional materials provision.

8. IMPLEMENTATION TIMETABLE

Deadline	Activity	Comments
End May 08	Complete design of competitive textbook evaluation and approval methodology and criteria	Requires 1 week workshop attended by NCDC, UNEB, Teacher Education, Secondary Education etc supported by 2 weeks specialist TA

End May 08	Study on secondary school storage requirements and preparation of storage upgrading strategy	
End June 08	Training Module for textbook evaluators and evaluation and approval management handbook completed	Requires small MOES working group supported by 2 weeks specialist TA
End June 08	Develop library management, usage and collection development guidelines for schools	
End June 08	Develop textbook storage and conservation guidelines	
End June 08	Complete calculation of school-based TCO for ICT in Uganda secondary schools	Specialist TA support may be needed here
End June 08	Final Decisions on Interim textbook funding	
End June 08	Final Decisions on nature and level of support for non USE private secondary schools	
End June 08	Final Decisions on Annual Library capitation grant	
Early July 08	Launch bid submission for S1 and S2 textbook evaluation and approval	
Early July 08	Identify and Train textbook evaluators	
End July 08	Bid submission deadline for textbook approval exercise	
Mid August 08	Textbook evaluation and approval complete	External moderation of evaluation and approval process might be required as for primary evaluation and approval procedures
End August 08	Approved list circulated to all secondary schools	
End August 08	Library management, usage and collection development circulated to schools	
End August 08	Textbook storage and conservation guidelines circulated to schools	
End August to end Dec 08	Launch In-service training programmes in library and textbook management issues	
End August 08	School-based textbook and library capitation allowances for S1 and S2 textbooks paid into school\ bank accounts	
End Sept 08	Design pilot connectivity project	In association with Telecommunications
Sept to Dec 08	Schools purchase textbooks according to school priorities from the approved list	
Sept to Dec 08	Develop National ICT Strategy for Secondary Education based on TCO (see above)	This should be achieved by setting up specialist ICT and subject specialist working group operating through a series of workshops facilitated by an external expert in ICT in education (<u>not</u> an ICT technician)
Oct 08	Launch connectivity pilot project	
Early Jan 09	Launch bid submission for S3 textbook evaluation and approval	

Early Jan 08	Identify and Train textbook evaluators	
End Feb 09	Bid submission deadline for textbook approval exercise	
End March 09	Textbook evaluation and approval complete	External moderation of evaluation and approval process might be required as for primary evaluation and approval procedures
End May 09	Approved list circulated to all secondary schools	
July 09 to Oct 09	Textbook and School Library Procurement by schools	
July 09	Evaluate connectivity pilot project	
Sept 09 to Dec 09	Continue in-service training on ICT, School Libraries, Textbook storage, management, conservation and loan/rental systems	
Early Jan 10	Launch bid submission for S4 textbook evaluation and approval	
Early Jan 10	Identify and Train textbook evaluators	
End Feb 10	Bid submission deadline for textbook approval exercise	
End March 10	Textbook evaluation and approval complete	External moderation of evaluation and approval process might be required as for primary evaluation and approval procedures
End May 10	Approved list circulated to all secondary schools	
July 10 to Oct 10	Textbook and School Library Procurement by schools	
Sept 10 to Dec 10	Continue in-service training on ICT, School Libraries, Textbook storage, management, conservation and loan/rental systems	
Early Jan 11	Launch bid submission for S1 new curriculum titles textbook evaluation and approval	
Early Jan 11	Identify and Train textbook evaluators	
End April 11	Bid submission deadline for textbook approval exercise	
End May 11	Textbook evaluation and approval complete	External moderation of evaluation and approval process might be required as for primary evaluation and approval procedures
End July 11	Approved list circulated to all secondary schools	
August 11 to Oct 11	Textbook and School Library Procurement by schools	
Sept 11 to Dec 11	Continue in-service training on ICT, School Libraries, Textbook storage, management, conservation and loan/rental systems	

9. COST IMPLICATIONS AND OPTIONS

9.1 Summary Cost Tables and Options

Table 16: Summary Cost Implications of Secondary Textbook Provision for S1 to S4 – Option 1

Date	No. of Students	Book Life	No of Titles	PB: Student Ratio	Unit Cost of PB '000 TSh	No of Student PB Copies	No of Tchrs PB Copies	Roll No Growth Allowance for PBs	Loss & Damage Allowance for PBs	Total PB Copies	Total PB Cost ('000 Ush)	Rental Fee	Collection Rate	Annual Income	Cumulative Income by Standard	Cumulative Surplus/Deficit
2008	528,300	6	10	3.00	20.00	1,761,000	88,050	0	332,829	2,181,879	43,637,580	10.00	80%	4,226,400	4,226,400	39,411,180
2009	608,800	0	10	2.89	20.00	0	0	0	0	0	0	10.00	80%	4,870,400	9,096,800	34,540,780
2010	682,600	0	10	3.20	20.00	0	0	0	0	0	0	10.00	80%	5,460,800	14,557,600	29,079,980
2011	723,200	0	10	3.02	20.00	0	0	0	0	0	0	10.00	80%	5,785,600	20,343,200	23,294,380
2012	744,200	0	10	2.93	20.00	0	0	0	0	0	0	10.00	80%	5,953,600	26,296,800	17,340,780
2013	774,000	0	10	2.82	20.00	0	0	0	0	0	0	10.00	80%	6,192,000	32,488,800	11,148,780
Total	4,061,100					1,761,000	88,050	0	332,829	2,181,879	43,637,580			32,488,800		
FORM TWO																
2008	384,000	6	10	3.00	20.00	1,280,000	64,000	0	241,920	1,585,920	31,718,400	10.00	80%	3,072,000	3,072,000	28,646,400
2009	492,100	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	3,936,800	7,008,800	24,709,600
2010	574,300	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	4,594,400	11,603,200	20,115,200
2011	651,300	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	5,210,400	16,813,600	14,904,800
2012	698,300	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	5,586,400	22,400,000	9,318,400
2013	726,600	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	5,812,800	28,212,800	3,505,600
Total	3,526,600					1,280,000	64,000	0	241,920	1,585,920	31,718,400			28,212,800		
FORM THREE																
2008	216700	0	0	0.00	20.00	0	0	0	0	0	0	0.00	0%	0	0	0
2009	345800	0	0	0.00	20.00	0	0	0	0	0	0	0.00	0%	0	0	0
2010	449700	6	10	3.00	20.00	1,499,000	74,950	0	0	1,573,950	31,479,000	10.00	80%	3,597,600	3,597,600	-27,881,400
2011	531600	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	4,252,800	7,850,400	23,628,600
2012	609900	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	4,879,200	12,729,600	18,749,400

2013	661700	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	5,293,600	18,023,200	13,455,8
Total	2,815,400					1,499,000	74,950	0	0	1,573,950	31,479,000			18,023,200		
FORM FOUR																
2008	192400		0	0.00	0.00	0	0	0	0	0	0	0.00	0%	0	0	
2009	198500	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0%	0	0	
2010	317900	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0%	0	0	
2011	419200	6	10	3.00	20.00	1,397,333	69,867	0	0	1,467,200	29,344,000	10.00	80%	3,353,600	3,353,600	29,343,9
2012	501800	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	4,014,400	7,368,000	21,976,0
2013	582200	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	4,657,600	12,025,600	17,318,4
Total	2,212,000					1,397,333	69,867	0	0	1,467,200	29,344,000			12,025,600		68,638,3
TOTALS	12,615,100					5,937,333	296,867		574,749	6,808,949	136,178,980			90,750,400		45,428,5

Table 17: Summary Cost Implications of Secondary Textbook Provision for S1 to S4 – Option 2

Date	No. of Students	Book Life	No of Titles	PB: Student Ratio	Unit Cost of PB '000 TSh	No of Student PB Copies	No of Tchrs PB Copies	Roll No Growth Allowance for PBs	Loss & Damage Allowance for PBs	Total PB Copies	Total PB Cost ('000 Ush)	Rental Fee	Collection Rate	Annual Income	Cumulative Income by Standard	Cumulative Surplus/Deficit
2008	528,300	6	10	4.50	20.00	1,174,000	58,700	0	221,886	1,454,586	29,091,720	10.00	80%	4,226,400	4,226,400	24,865,3
2009	608,800	0	10		20.00	0	0	0	0	0	0	10.00	80%	4,870,400	9,096,800	19,994,9
2010	682,600	0	10		20.00	0	0	0	0	0	0	10.00	80%	5,460,800	14,557,600	14,534,1
2011	723,200	0	10		20.00	0	0	0	0	0	0	10.00	80%	5,785,600	20,343,200	8,748,5
2012	744,200	0	10		20.00	0	0	0	0	0	0	10.00	80%	5,953,600	26,296,800	2,794,9
2013	774,000	0	10		20.00	0	0	0	0	0	0	10.00	80%	6,192,000	32,488,800	-3,397,0
Total	4,061,100					1,174,000	58,700	0	221,886	1,454,586	29,091,720			32,488,800		
FORM TWO																
2008	384,000	6	10	4.50	20.00	853,333	42,667	0	161,280	1,057,280	21,145,600	10.00	80%	3,072,000	3,072,000	18,073,6

2009	492,100	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	3,936,800	7,008,800	14,136,800
2010	574,300	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	4,594,400	11,603,200	9,542,400
2011	651,300	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	5,210,400	16,813,600	4,332,000
2012	698,300	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	5,586,400	22,400,000	-1,254,400
2013	726,600	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	5,812,800	28,212,800	-7,067,200
Total	3,526,600					853,333	42,667	0	161,280	1,057,280	21,145,600			28,212,800		
FORM THREE																
2008	216700	0	0	0.00	20.00	0	0	0	0	0	0	0.00	0%	0	0	0
2009	345800	0	0	0.00	20.00	0	0	0	0	0	0	0.00	0%	0	0	0
2010	449700	6	10	4.50	20.00	999,333	49,967	0	0	1,049,300	20,986,000	10.00	80%	3,597,600	3,597,600	-17,388,400
2011	531600	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	4,252,800	7,850,400	13,135,600
2012	609900	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	4,879,200	12,729,600	8,256,400
2013	661700	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	5,293,600	18,023,200	2,962,800
Total	2,815,400					999,333	49,967	0	0	1,049,300	20,986,000			18,023,200		
FORM FOUR																
2008	192400	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0%	0	0	0
2009	198500	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0%	0	0	0
2010	317900	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0%	0	0	0
2011	419200	6	10	3.00	20.00	931,556	46,578	0	0	978,133	19,562,667	10.00	80%	3,353,600	3,353,600	19,562,667
2012	501800	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	4,014,400	7,368,000	12,194,600
2013	582200	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	4,657,600	12,025,600	7,537,000
Total	2,212,000					931,556	46,578	0	0	978,133	19,562,667			12,025,600		39,294,300
TOTALS	12,615,100					3,958,222	197,911		383,166	4,539,299	90,785,987			90,750,400		35,500,000

Table 18: Summary Cost Implications of Secondary Textbook Provision for S1 to S4 – Option 3

Date	No. of Students	Book Life	No of Titles	PB: Student Ratio	Unit Cost of PB '000 TSh	No of Student PB Copies	No of Tchrs PB Copies	Roll No Growth Allowance for PBs	Loss & Damage Allowance for PBs	Total PB Copies	Total PB Cost ('000 Ush)	Rental Fee	Collection Rate	Annual Income	Cumulative Income by Standard	Cumulative Surplus/
2008	528,300	6	10	6.00	20.00	880,500	44,025	0	166,415	1,090,940	21,818,790	10.00	80%	4,226,400	4,226,400	17,59
2009	608,800	0	10		20.00	0	0	0	0	0	0	10.00	80%	4,870,400	9,096,800	12,72
2010	682,600	0	10		20.00	0	0	0	0	0	0	10.00	80%	5,460,800	14,557,600	7,26
2011	723,200	0	10		20.00	0	0	0	0	0	0	10.00	80%	5,785,600	20,343,200	1,47
2012	744,200	0	10		20.00	0	0	0	0	0	0	10.00	80%	5,953,600	26,296,800	-4,47
2013	774,000	0	10		20.00	0	0	0	0	0	0	10.00	80%	6,192,000	32,488,800	-10,67
Total	4,061,100					880,500	44,025	0	166,415	1,090,940	21,818,790			32,488,800		
FORM TWO																
2008	384,000	6	10	6.00	20.00	640,000	32,000	0	120,960	792,960	15,859,200	10.00	80%	3,072,000	3,072,000	12,78
2009	492,100	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	3,936,800	7,008,800	8,85
2010	574,300	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	4,594,400	11,603,200	4,25
2011	651,300	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	5,210,400	16,813,600	-95
2012	698,300	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	5,586,400	22,400,000	-6,54
2013	726,600	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	5,812,800	28,212,800	-12,35
Total	3,526,600					640,000	32,000	0	120,960	792,960	15,859,200			28,212,800		
FORM THREE																
2008	216700	0	0	0.00	20.00	0	0	0	0	0	0					
2009	345800	0	0	0.00	20.00	0	0	0	0	0	0					
2010	449700	6	10	6.00	20.00	749,500	37,475	0	0	786,975	15,739,500	10.00	80%	3,597,600	3,597,600	-12,14
2011	531600	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	4,252,800	7,850,400	7,85
2012	609900	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	4,879,200	12,729,600	3,00
2013	661700	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	5,293,600	18,023,200	-2,28
Total	2,815,400					749,500	37,475	0	0	786,975	15,739,500			20,020,000		

FORM FOUR

2008	192400		0	0.00		0	0	0	0	0	0						
2009	198500	0	0	0.00		0	0	0	0	0	0						
2010	317900	0	0	0.00		0	0	0	0	0	0						
2011	419200	6	10	6.00	20.00	698,667	34,933	0	0	733,600	14,672,000	10.00	80%	3,353,600	3,353,600	14,672,000	
2012	501800	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	4,014,400	7,368,000	7,368,000	
2013	582200	0	10	0.00	20.00	0	0	0	0	0	0	10.00	80%	4,657,600	12,025,600	2,657,600	
Total	2,212,000					698,667	34,933	0	0	733,600	14,672,000			12,025,600		5,695,000	

TOTALS	12,615,100					2,968,667	148,433	0	0	287,375	3,404,475	68,089,490			10,261,150,400		#####
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Table 19: Summary Cost Implications of Secondary Textbook Provision for S1 to S4 – Option 4

Date	No. of Students	Book Life	No of Titles	PB: Student Ratio	Unit Cost of PB '000 TSh	No of Student PB Copies	No of Tchrs PB Copies	Roll No Growth Allowance for PBs	Loss & Damage Allowance for PBs	Total PB Copies	Total PB Cost ('000 Ush)	Rental Fee	Collection Rate	Annual Income	Cumulative Income by Standard	Cumulative Surplus/Deficit
2011	723,200	6	10	3.00	15.00	2,410,667	120,533	0	455,616	2,986,816	44,802,240	10.00	80%	5,785,600	5,785,600	39,016,640
2012	744,200	0				0	0	0	0	0	0	10.00	80%	5,953,600	11,739,200	33,063,040
2013	774,000	0				0	0	0	0	0	0	10.00	80%	6,192,000	17,931,200	26,871,040
2014	800,000	0				0	0	0	0	0	0	10.00	80%	6,400,000	24,331,200	20,471,040
Total	3,041,400					2,410,667	120,533	0	455,616	2,986,816	44,802,240			24,331,200		
FORM TWO																
2011	651,300	0		0.00		0	0	0	0	0	0				0	
2012	698,300	6	10	3.00	15.00	2,327,667	116,383	0	0	2,444,050	36,660,750	10.00	80%	5,586,400	5,586,400	-5,586,400
2013	726,600	0		0.00		0	0	0	0	0	0	10.00	80%	5,812,800	11,399,200	-11,399,200
2014	750,000	0		0.00		0	0	0	0	0	0	10.00	80%	6,000,000	17,399,200	-17,399,200
Total	2,826,200					2,327,667	116,383	0	0	2,444,050	36,660,750			17,399,200		

FORM THREE																	
2011	216700	0				0	0	0	0	0	0	0.00	0%	0	0		
2012	345800	0				0	0	0	0	0	0	0.00	0%	0	0		
2013	449700	6	10	3.00	15.00	1,499,000	74,950	0	0	1,573,950	23,609,250	10.00	80%	3,597,600	3,597,600	-20,011,600	
2014	475000	0		0.00		0	0	0	0	0	0	10.00	80%	3,800,000	7,397,600	16,211,600	
Total	1,487,200					1,499,000	74,950	0	0	1,573,950	23,609,250			7,397,600			
FORM FOUR																	
2011	192400		0	0.00	0.00	0	0	0	0	0	0	0.00	0%	0	0		
2012	198500	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0%	0	0		
2013	317900	0	0	0.00	0.00	0	0	0	0	0	0	0.00	0%	0	0		
2014	350,000	6	10	3.00	15.00	1,166,667	58,333	0	0	1,225,000	18,375,000	10.00	80%	2,800,000	2,800,000	18,374,900	
Total	1,058,800					1,166,667	58,333	0	0	1,225,000	18,375,000			2,800,000		18,374,900	
TOTALS	8,413,600					7,404,000	370,200			455,616	8,229,816			123,447,240		51,928,000	71,519,200

Table 20: Summary Cost Implications of BVET Textbook Provision for T1 and T2 – Option 1

Date	No. of Students	Book Life	No of Titles	PB: Student Ratio	Unit Cost of PB '000 TSh	No of Student PB Copies	No of Tchrs PB Copies	Roll No Growth Allowance for PBs	Loss & Damage Allowance for PBs	Total PB Copies	Total PB Cost ('000 Ush)	Rental Fee	Collection Rate	Annual Income	Cumulative Income	Cumulative Surplus/Deficit
TECH ONE																
2008	58,800.0	6	5	3.00	30.00	98,000	4,900	0	18,522	121,422	3,642,660	10.00	80%	470,400	470,400	3,172,260
2009	60,700.0	0	0		30.00	0	0	0	0	0	0	10.00	80%	485,600	956,000	2,686,660
2010	96,600.0	6	5	6.00	30.00	80,500	4,025	0	15,215	99,740	2,992,185	10.00	80%	772,800	1,728,800	1,914,860
2011	127,700.0	0	0		30.00	0	0	0	0	0	0	10.00	80%	1,021,600	2,750,400	893,460
2012	153,100.0	6	5	9.00	30.00	85,056	4,253	0	16,076	105,384	3,161,515	10.00	80%	1,224,800	3,975,200	-332,050
2013	177,700.0	0	0		30.00	0	0	0	0	0	0	10.00	80%	1,421,600	5,396,800	-1,754,600
Total	674,600					263,556	13,178	0	49,812	326,545	9,796,360			5,396,800		

TECH TWO																
2008	58,400.0	6	5	3.00	30.00	97,333	4,867	0	18,396	120,596	3,617,880	10.00	80%	467,200	467,200	3,150,680
2009	61,800.0	0	0	0.00	30.00	0	0	0	0	0	0	10.00	80%	494,400	961,600	2,650,080
2010	63,800.0	6	5	6.00	30.00	53,167	2,658	0	10,049	65,874	1,976,205	10.00	80%	510,400	1,472,000	2,142,080
2011	100,800.0	0	0	0.00	30.00	0	0	0	0	0	0	10.00	80%	806,400	2,278,400	1,335,680
2012	133,500.0	6	5	9.00	30.00	74,167	3,708	0	14,018	91,893	2,756,775	10.00	80%	1,068,000	3,346,400	271,680
2013	160,400.0	0	0	0.00	30.00	0	0	0	0	0	0	10.00	80%	1,283,200	4,629,600	-1,012,000
Total	578,700					224,667	11,233	0	42,462	278,362	8,350,860			4,629,600		
TECH THREE																
TECH FOUR																
TOTALS	1,253,300					488,222	24,411		92,274	604,907	18,147,220			10,026,400		8,120,820

Table 21: Summary Cost Implications of BVTET Textbook Provision for T1 and T2 – Option 2

Date	No. of Students	Book Life	No of Titles	PB: Student Ratio	Unit Cost of PB *000 TSh	No of Student PB Copies	No of Tchrs PB Copies	Roll No Growth Allowance for PBs	Loss & Damage Allowance for PBs	Total PB Copies	Total PB Cost ('000 Ush)	Rental Fee	Collection Rate	Annual Income	Cumulative Income by Standard	Cumulative Surplus/Deficit
TECH ONE																
2008	58,800.0	6	5	4.50	30.00	65,333	3,267	0	12,348	80,948	2,428,440	10.00	80%	470,400	470,400	1,958,040
2009	60,700.0	0	0		30.00	0	0	0	0	0	0	10.00	80%	485,600	956,000	1,472,440
2010	96,600.0	6	5	6.00	30.00	53,667	2,683	0	10,143	66,493	1,994,790	10.00	80%	772,800	1,728,800	699,640
2011	127,700.0	0	0		30.00	0	0	0	0	0	0	10.00	80%	1,021,600	2,750,400	-321,960
2012	153,100.0	6	5	13.50	30.00	56,704	2,835	0	10,717	70,256	2,107,677	10.00	80%	1,224,800	3,975,200	-1,546,760
2013	177,700.0	0	0		30.00	0	0	0	0	0	0	10.00	80%	1,421,600	5,396,800	-2,968,360
Total	674,600					175,704	8,785	0	33,208	217,697	6,530,907			5,396,800		
TECH TWO																
2008	58,400.0	6	5	4.50	30.00	64,889	3,244	0	12,264	80,397	2,411,920	10.00	80%	467,200	467,200	1,944,720

2009	61,800.0	0	0	0.00	30.00	0	0	0	0	0	0	10.00	80%	494,400	961,600	1,450,320
2010	63,800.0	6	5	6.00	30.00	35,444	1,772	0	6,699	43,916	1,317,470	10.00	80%	510,400	1,472,000	939,920
2011	100,800.0	0	0	0.00	30.00	0	0	0	0	0	0	10.00	80%	806,400	2,278,400	133,520
2012	133,500.0	6	5	13.50	30.00	49,444	2,472	0	9,345	61,262	1,837,850	10.00	80%	1,068,000	3,346,400	-934,480
2013	160,400.0	0	0	0.00	30.00	0	0	0	0	0	0	10.00	80%	1,283,200	4,629,600	-2,217,680
Total	578,700					149,778	7,489	0	28,308	185,575	5,567,240			4,629,600		

TECH THREE

TECH FOUR

TOTALS	1,253,300					325,481	16,274		61,516	403,272	12,098,147			10,026,400		2,071,747
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Table 22: Summary Cost Implications of BVTET Textbook Provision for T1 and T2 – Option 3

Date	No. of Students	Book Life	No of Titles	PB: Student Ratio	Unit Cost of PB '000 TSh	No of Student PB Copies	No of Tchrs PB Copies	Roll No Growth Allowance for PBs	Loss & Damage Allowance for PBs	Total PB Copies	Total PB Cost ('000 Ush)					
TECH ONE																
2008	58,800.0	6	5	6.00	30.00	49,000	2,450	0	9,261	60,711	1,821,330					
2009	60,700.0	0	0		30.00	0	0	0	0	0	0					
2010	96,600.0	6	5	6.00	30.00	53,667	2,683	0	10,143	66,493	1,994,790					
2011	127,700.0	0	0		30.00	0	0	0	0	0	0					
2012	153,100.0	6	5	9.00	30.00	56,704	2,835	0	10,717	70,256	2,107,677					
2013	177,700.0	0	0		30.00	0	0	0	0	0	0					
Total	674,600					159,370	7,969	0	30,121	197,460	5,923,797					
TECH TWO																
2008	58,400.0	6	5	6.00	30.00	48,667	2,433	0	9,198	60,298	1,808,940					
2009	61,800.0	0	0	0.00	30.00	0	0	0	0	0	0					
2010	63,800.0	6	5	6.00	30.00	35,444	1,772	0	6,699	43,916	1,317,470					

2011	100,800.0	0	0	0.00	30.00	0	0	0	0	0	0					
2012	133,500.0	6	5	9.00	30.00	49,444	2,472	0	9,345	61,262	1,837,850					
2013	160,400.0	0	0	0.00	30.00	0	0	0	0	0	0					
Total	578,700					133,556	6,678	0	25,242	165,475	4,964,260					
TECH THREE																
TECH FOUR																
TOTALS	1,253,300					292,926	14,646		55,363	362,935	10,888,057					

Table 23: Summary Cost Implications of Secondary & BVET Library Provision

Type of Institution	Number	Annual Stock Items	Unit Stock Cost ('000 US\$)	Stock Budget for One School ('000 US\$)	Total Annual Library Procurement Budget for all Schools ('000 US\$)
Secondary Schools	1150	150	10.00	1500.00	1,725,000
BVET Institutions	62	150	10.00	1500.00	93,000
TOTALS	1212				1,818,000

9.2 Interim Textbook Provision for Secondary Schools – Options 1-3

Tables 16 to 23, above, provide costing summaries for different approaches to interim textbook provision and cost. Annex 3 is an embedded file which contains a spreadsheet where a wide range of options can be inserted and the cost implications calculated. The variables should be entered into the “*What if...*” worksheet and the cost implications will be demonstrated on the “*Costs*” worksheet

The basic assumptions used in the costing spreadsheet (Option 1) are those specified by MOES as follows:

- 10 textbooks per student
- Student enrolments as specified by EPD
- A 6 year book life expectation
- A 1:3 textbook to student ratio
- An average cost of US\$20,000
- 1 teachers’ guide for every 20 students
- A loss and damage allowance of 3% per year
- S1 and S2 textbooks and teachers’ guides procured in Sept 2008
- S3 textbooks and teachers’ guides procured in Sept 2009
- S4 textbooks and teachers’ guides procured in Sept 2010

On the basis of the assumptions specified above textbook procurement costs are calculated as:

- US\$75.355 billion in 2008 (for S1 and S2)
- US\$31.479 billion in 2009 (for S3)
- US\$29.344 billion in 2010 (for S4)
- Total cost for all 4 years of junior secondary is **US\$136.179 billion**

Table 16 (Option 1) also provides an illustration of the impact of a modest cost recovery by assuming a small student contribution of US\$10,000 per head and an average collection rate of the rental fee of 80% towards the cost of textbook access via the school library. On this basis the textbook rental fee would generate US\$90.750 billion over a 6 year period (the assumed textbook life), which would leave the net textbook expenditure figure at only **US\$45.429 billion** for 10 textbooks for all 4 secondary grades at a ratio of 1:3

Table 17 (Option 2) uses exactly the same assumptions as Option 1 but assumes a 1:3 ratio for 5 core subjects and a 1:6 ratio for the other 5 subjects (an average ratio over 10 subjects of 1:4.5. On the basis of these assumptions the textbook procurement costs are calculated as:

- US\$50.238 billion in 2008 (for S1 and S2)
- US\$20.986 billion in 2009 (for S3)
- US\$19.563 billion in 2010 (for S4)
- Total cost for all 4 years of junior secondary is **US\$90.786 billion**

If the cost recovery allocation of US\$10,000 per student per year over a 6 year period is maintained the income generated is **US\$90.750 billion**, which represents break even and an almost zero cost to government over a 6 year period, although GOU/MOES would still have to find the investment finance

Table 18 (Option 3) uses the same assumptions as for Option 1 and Option 2 but assumes a 1:3 textbook ratio for 4 core subjects and a 1:8 textbook ratio for the other 6 subjects. This is equivalent to an overall average 1:6 textbook to student ratio over all 10 subjects. On the basis of these assumptions the textbook procurement costs can be calculated as follows

- USh37.678 billion in 2008 (for S1 and S2)
- USh15.740 billion in 2009 (for S3)
- USh14.672 billion in 2010 (for S4)
- Total cost for all 4 years of junior secondary is **US\$68.089 billion**

If the cost recovery is maintained at USh10,000 per student per year there would be a surplus of income over expenditure of around USh22 billion. If the cost recovery is halved to USh5,000 per student per year the net cost to the GOU/MOES would be approximately USh23 billion for all 4 years

9.3 Interim Textbook Provision for BTVET Institutions – Options 1-3
Tables 20-22 operate on the same assumptions as Tables 16-18 but with two differences. Firstly, only two years (Tech 1 and Tech 2) are included and secondly the enrolment increases are so large year on year that interim top-up supplies have to be procured every other year in order to maintain the basic textbook:student ratios

On this basis, Option 1 shows a cost of USh18,127 billion for the textbooks for two grade levels against a potential income of USh10.027 billion. Option 2 costs USh 12.098 billion against a predicted income of USh10.027 and Option 3 demonstrates a near break even point of USh10.888 billion expenditure against a rental fee income (if required) of USh10.027 billion

9.4 New Curriculum Textbook Provision

Table 19 provides an example of the costs of new textbook provision for a new curriculum. It assumes an introduction date of 2011 and assumes also that the introduction of a competitive evaluation and approval mechanism, which encourages local publishing specifically for Uganda and which also exerts positive downward pressure on prices will achieve at least a 25% price premium

Thus, the basic assumptions in the costing spreadsheet are 10 textbooks per student

- Student enrolments as specified by EPD
- A 6 year book life expectation
- A 1:3 textbook to student ratio
- An average cost of USh15,000
- 1 teachers' guide for every 20 students
- A loss and damage allowance of 3% per year
- S1 textbooks and teachers' guides procured in Sept 2011
- S2 textbooks and teachers' guides procured in Sept 2012
- S3 textbooks and teachers' guides procured in Sept 2013
- S4 textbooks and teachers' guides procured in Sept 2014

This scenario demonstrates an expenditure of US\$123.447 over the 4 year period 2011 to 2014 and income from a small rental fee of US\$51.928 billion over the same period. Rental fee income would rise to almost US\$90.000 billion over a six-year period of cost amortisation, which would leave the net cost at around US\$33 billion for 10 textbooks for each of grades S1 to S4 supplied at ratios of 1:3.

As with the Interim scenario, different assumptions can provide different cost and income profiles according to the requirements of the GOU/MOES

9.5 Secondary School and BVTET Library Development Costs

Table 23 assumes as follows:

- A total of 1,212 secondary schools and BVTET institutions
- An annual stock procurement target of 150 stock items per year, which over a period of 6 years will enable each school to develop a school library of at least 900 stock items
- An average unit cost of library stock items of US\$10,000
- A target library profile of 1 dictionary per 20 students (in a school of 600 students this represents 30 dictionaries)
- A target library profile of 1 atlas per 40 students = 15 atlases
- One up to date print-based encyclopaedia
- At least 300 contemporary Africa novels/plays/poetry
- 550 reference and curriculum support titles in both print and electronic formats as required
- Sufficient operational budgets from the general school capitation grant to allow for regular internet access whenever possible

All of the above could be provided over a 6 year period by an annual capitation grant of US\$1.818 billion divided into 1212 secondary schools/BVTET institutions. It would, of course, be more desirable if the initial grants could be increased to allow for a faster stock build up, which would in turn lead to greater interest in and use of the school library

9.6 Other Costs

The major additional costs are associated with (a) training; and (b) specialist TA.

The training cost can be calculated as follows:

- Training needs to be provided for (a) ICT management and usage; (b) textbook management and usage; (c) library management and usage; (d) textbook storage and conservation
- If we assume that each training course will require 5 days of training and that 2 staff members from each of the 1212 schools will attend each course then the training requirement can be calculated as 1212 schools x 4 courses x 5 days x 2 staff = 48,480 training days x US\$50,000 per person day (to include both trainer and trainee costs) = US\$2.424 billion for training

It is estimated that 24 weeks of specialist TA will be required to successfully launch the textbook, school library and ICT components

ANNEX 1: MISSION TERMS OF REFERENCE



MINISTRY OF EDUCATION AND SPORTS

TERMS OF REFERENCE

DRAFT TORS FOR SECONDARY TEXTBOOK DEVELOPMENT IN UGANDA

1.0 BACKGROUND

Investment in quality education contributes, to the accumulation of human capital stock, which is a pre-requisite for increased incomes, sustained economic growth and overall development of any nation. Uganda has made good progress towards the attainment of EFA through the successful implementation of Universal Primary Education (UPE) that has seen enrolment rising from 2.9 million in 1997 to 7.5 million children by 2006.

The launch of the Universal Post Primary Education and Training policy, which includes secondary education, in early 2007 has led to a large increase in the number of students in secondary schools, and several reforms, including curriculum and assessment reforms for secondary education are planned.

2.0 RATIONALE/JUSTIFICATION:

International research has demonstrated the positive impact of textbooks on student learning. Without an adequate supply of textbooks students are unlikely to achieve the expected levels of learning achievement, that are necessary for economic development, therefore the country would not benefit from increased investment in education. Similarly, there is a body of research that highlights the importance of school libraries for increased student learning achievement. The importance of textbooks and school libraries for effective secondary education is widely recognised, but high unit costs often result in extremely low availability in the classroom. While some progress has been made at improving availability of textbooks in primary schools through more efficient procurement and distribution arrangements, a lot remains to be done

at secondary level, particularly following the implementation of USE. In addition, the recent curriculum, assessment and examination review pointed to the poor quality and acute shortage of instructional materials. The review also noted that the current textbooks, particularly in the sciences, date from as far back as the 1970s, they promote rote learning without understanding and have a very high language demand. In addition, a recent study on textbook provision made a number of proposals for ensuring a better supply of textbooks but did not address the issue of quality. Considerable effort is therefore urgently required to improve availability, quality and reduce the cost of learning materials, in particular textbooks.

3.0 OBJECTIVES OF THE CONSULTANCY

The main objectives of the consultancy are to:

- (a) Review and generate options for the provision of textbooks and other instructional materials for secondary education.
- (b) Identify ways of reducing cost and improving quality of secondary education textbooks.
- (c) Review a range of options for the provision of basic library facilities for secondary schools in Uganda
- (d) Review and make recommendations for effective and affordable ICT provision for secondary schools

4.0 SCOPE OF WORK:

- (a) Undertake field research in Uganda on the current situation in Ugandan secondary schools concerning secondary textbook and school library provision. This should include visits to government, grant aided and private schools in Kampala, selected rural areas and the North in order to gather the required data.
- (b) Based on results from the field work, update the original DFID funded study on secondary textbook and school library provision that was completed in 2002/2003. Include specific recommendations on improving quality, relevance and reducing costs of instructional materials.
- (c) Provide a draft revised report and recommendations, with all necessary costing and time schedules, etc to the MOES prior to running a 1 day workshop in Kampala for MOES and other stakeholders to present the findings and recommendations to the widest possible constituency.
- (d) Take note of all comments and suggestions arising from the workshop and from any subsequent discussions with MOES and its stakeholders in the preparation of a final version of the report for submission to MOES.
- (e) Produce a detailed roadmap with costing and agreed timescales necessary to achieve an effective secondary textbook and school

library development programme arising from the policy workshop held in Kampala. This should be linked to the secondary curriculum, examination and assessment review.

5.0 REPORTING AND DELIVERABLES

The consultant will work closely with the Ministry of Education and in particular the Secondary Education Department, NCDC, Teacher Education Department, the Inspectorate and UNEB etc.

The consultant will work under the direction of the Commissioner for Education Planning, who will appoint a quality assurance officer to be responsible for ensuring timely and quality delivery.

The key outputs will be:

- (i) An inception report outlining how the consultant will execute the tasks outlined in the scope above. This report should be ready for presentation to the Monitoring and Evaluation Working Group (M&E WG) by end of week 1 following commencement of the assignment.
- (ii) A draft report incorporating all the analyses, findings, recommendations and an implementation matrix to Government will be presented to the M&E WG by week 2.
- (iii) The Consultant will present a final draft report incorporating comments made on draft report by the end of week 4.

6.0 DURATION OF THE ASSIGNMENT

The assignment will require 32 man-days over an elapsed period of two calendar months (November to December 2007).

APPENDIX 2: MECHANISM FOR DISTRIBUTION AND DISBURSEMENT OF SECONDARY/BTVET CAPITATION GRANTS UNDER THE UPPET PROGRAM - VOTE 013, MINISTRY OF EDUCATION AND SPORTS – FY 2006/07²⁴

1.0 Introduction

- (a) In November 2005, the President of the Republic of Uganda H.E. Yoweri Kaguta Museveni announced Government's declaration to introduce Universal Post-Primary Education and Training (UPPET), beginning with academic year 2007. UPPET constitutes: Secondary Education ("O" Level) and Primary Seven graduates taking Vocational and Technical Education and Training courses. UPPET for the start will apply to only Year One in the academic year 2007.
- (b) UPPET has four purposes:
 - (i) Increasing equitable access to secondary education and primary seven enrolling BTVET institutions;
 - (ii) Assuring achievement of the MDG of Gender parity by 2015;
 - (iii) Enhancing sustainability of UPE; and
 - (iv) Reducing the high costs of secondary education and BTVET.
- (c) Provision of capitation grants (tuition fees) is one of the major cost centers of the UPPET program. Other cost centers are: the wage bill; instructional materials; physical infrastructure, science equipment and apparatus, chemical reagents and the curriculum review.
- (d) Provision of capitation grants in particular is aimed at assuring universal access and ensuring quality PPET delivery.

2.0 Distribution of the UPPET capitation grant – Shs. 22.83bn

The UPPET capitation grant covers a variable grant, a fixed grant and a bursary. The definition and distribution of these three types of the UPPET capitation grant is given in sections 2.1 and 2.2 below.

2.1 Distribution of UPPET fixed and variable grants

- (a) The Ministry of Education and Sports (MoES) will provide capitation grants in two forms i.e. as a fixed grant and variable grant in the FY 2006/07 within the available budget of Shs. 22.83bn.
- (b) A threshold of Ug. Shs. 7m/= will be provided as a fixed grant to every deserving Government Secondary School and P7 graduate-enrolling BTVET institution per academic term regardless of the size and location. The rationale is intended not to disadvantage schools with low enrollment because regardless of the size of the school, there are certain costs that are fixed and do not therefore depend on enrolment.

²⁴ Presented at UPPET National Conference Oct 12th-13th 2006

Annex 1 provides a breakdown of this fixed grant. Due to budget constraint, the Ministry will not provide fixed grants to schools and BTVET institutions in second and third term.

- (c) A variable cost of Ug. Shs. 29,420/= will be paid as part of tuition fees for every S1 student enrolled in academic year 2007 per term. For BTVET, a variable grant of Ug. Shs. 68,720/= will be provided per trainee per academic term. *Annex 2* provides a breakdown of this variable grant.
- (d) The allocation of Shs. 22.83bn to the deserving government secondary schools and BTVET institutions is to be done as indicated in *Annex 3* below. A total of 695 Government schools and 46 BTVET institutions will benefit.

2.2 Distribution of bursaries to students in 271 sub-counties without Government schools

MoES will release Shs. 47,000/= per student per term in selected willing private schools in the 271 sub-counties that do not have Government secondary schools. These bursaries shall be released directly by Bank of Uganda bank accounts of the selected willing private secondary schools after authorization by the Permanent Secretary, Ministry of Education and Sports (PS/ES). *Annex 4* provides a list of willing selected beneficiary private secondary schools.

3.0 Disbursement of Capitation Grant

3.1 Current disbursement mechanism of capitation grants

Presently Government releases secondary capitation grants to schools through their respective districts. Ministry of Education and Sports advises Ministry of Finance, Planning and Economic Development (MFPED) on the amounts to be released to every school per academic term. MFPED releases the required funds to the Chief Administrative Officers (CAOs) and Town Clerks who in turn release the funds to respective schools. Schools account for the funds received through the CAOs or Town Clerks to the MoES.

3.2 Proposed disbursement mechanism under the UPPET program

3.2.1 Opening special UPPET school bank accounts (adopted from the Kenyan model)

- (a) The Permanent Secretary MoES (PS/ES) will advise the Director Banking, Bank of Uganda to release both the fixed and variable capitation grants directly to the respective secondary school bank accounts. The same will apply to the 46 BTVET institutions enrolling P7 completers. This arrangement will apply to both funds mobilized from Government own sources and the development partners. Required funds will be mobilized and be managed through a SWAP i.e. funds from both Government and development partners will be pooled in one basket and disbursed directly to deserving secondary schools and 46 BTVET institutions.

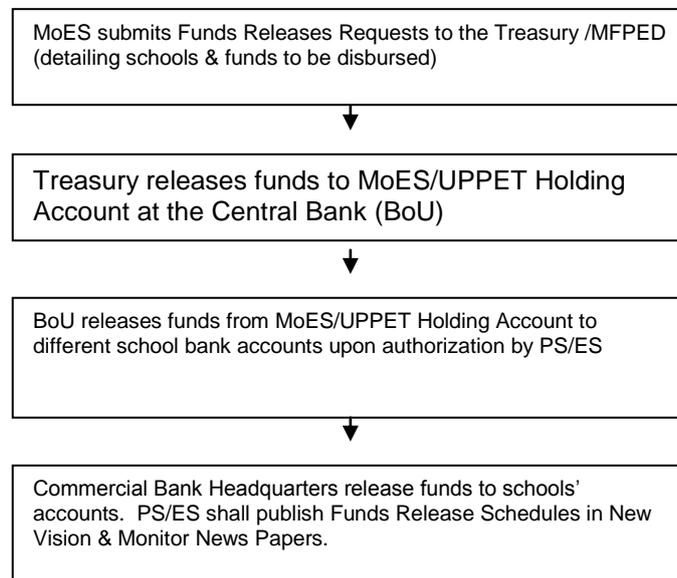
- (b) PS/ES will advise/require each school Head teacher to open a School Account and communicate it to PS/ES. The School Account to be opened with one bank that will have offered countrywide services.
- (c) The Treasury will print one cheque in favor of Bank of Uganda for the total amount of money to be transferred to Post Primary Education and Training Institutions.
- (d) Bank of Uganda will use RTGS to remit all monies to the different Commercial Banks within the country paying the different PPET institutions.
- (e) PS/ES will release funds to schools once every quarter (every 1st month of the term) to pay students' capitation fees.
- (f) The secondary schools and BTVET institutions have Bursars with the capacity to manage the funds through their school accounts and account appropriately.
- (g) A database of commercial bank accounts of the secondary schools and 46 BTVET institutions will be created at MoES headquarters. The Commissioner Education Planning (C/EP) will review and verify these bank accounts with the schools to avoid delays and risk of loss of funds through transfers to wrong accounts. To facilitate this, the Commissioner Secondary Education (C/SE) shall provide to the C/EP a list of all the deserving secondary schools (Government and private) and P7-enrolling BTVET institutions, clearly indicating their respective districts and school bank account details on a monthly basis. C/EP will check the list against the database and make reconciliation's as appropriate.
- (h) A database of secondary schools and BTVET institutions will be created and kept updated to facilitate efficient and effective transfer to UPPET funds to the beneficiary schools and BTVET institutions. Head teachers and Head instructors will be responsible for ensuring that the MoES HQ database is kept updated. The Head teachers shall immediately communicate changes in Bank Account numbers to MoES headquarters.
- (i) Considering the large amount of funds expected to flow through the UPPET school account and the risk of loss or delay in transfer of funds, MoES shall make negotiations and agree with the Bank of Uganda to:
 - (i) Develop a Special Serial Numbering System strictly for the accounts of the deserving secondary schools and the 46 BTVET institutions to facilitate ease in identification of the accounts.
 - (ii) Have direct access to the school accounts to enhance efficiency in verification of information and monthly reconciliations, and delays in reporting.
 - (iii) Reject those changes in the school bank accounts holding UPPET funds that are not approved by BoGs and PTAs.
- (j) The Head teachers shall obtain approval to change school bank accounts from the BoG & PTA who will communicate the new account number to MoES HQ immediately. This will mitigate risk of loss of funds due to transfer to wrong/personal accounts.

3.2.2 Keeping capitation cashbooks

Every school or BTVET institutions shall have a cashbook containing approved budget items (Vote heads). This cashbook may be improved to accommodate any additional budget items. Financial data will be summarized in the normal quarterly School Receipts and Expenditure Report and forwarded to the MoES HQ (attached as *Annex 5*). This report, together with Simple School Activity Progress and Procurement Tracking Reports (attached as *Annex 6*) will be used by the MoES headquarters ((i.e. C/EP) to prepare a quarterly consolidated Financial Monitoring Reports (FMRs – attached as *Annex 7*) to be submitted to MFPED. The FMRs will be designed in formats that address GoU reporting requirements.

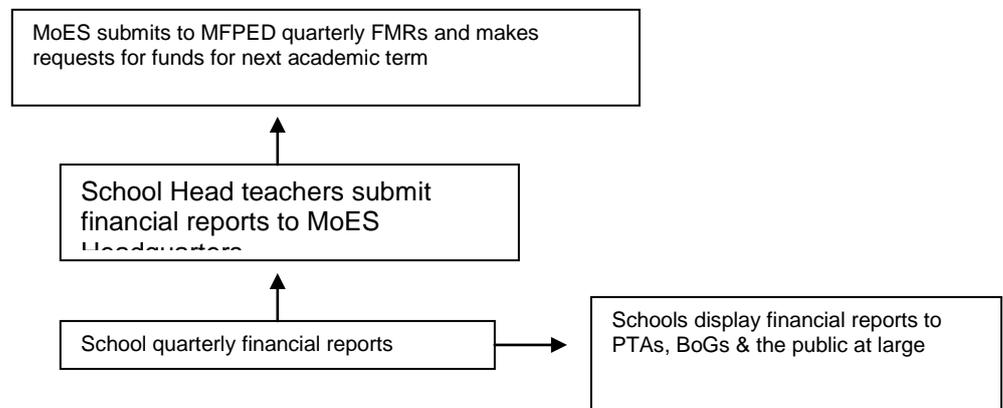
3.2.3 Capitation grants' flow chart

The UPPET capitation grants will flow from the Treasury to secondary schools and 46 BTVET institutions as indicated below in the chart:



3.2.3 Reporting chart

Financial reporting on funds disbursed to secondary schools and BTVET institutions will be as indicated in the chart below:



4.0 Publication and display of funds released (transparency)

- (a) The MoES will publish in the New Vision and Monitor News Papers the amounts of capitation grants released to every school and BTVET institutions on a quarterly basis. The publication will indicate the commercial bank accounts to which the funds have been transferred and intended purpose (budget lines). MoES will publish funds released to every district and school.
- (b) Schools display funds released on the notice boards. Schools shall display on the notice boards of schools, churches or in trading centres funds received and their intended use. Subsequently, the schools shall display the receipts and expenditure reports to account for the funds. A sample of the proposed display is provided in *Annex 8*.
- (c) This effort will continue to enhance transparency, from the MoES HQ to the secondary schools and BTVET institutions to strengthen the UPPET monitoring tasks.

5.0 Internal and budgetary controls for UPPET

- (a) The MoES financial management procedures have in-built internal control mechanisms that will ensure that capitation grants are utilized and accounted for as intended.
- (b) Officers have been identified in Secondary Education Department, BTVET department, Education Planning Department and Accounts to work together with and harmonize positions.
- (c) Beneficiary secondary schools and BTVET institutions will be listed in the financial management instructions (Handbook) to be prepared by MoES prior to commencement of the UPPET program. This handbook will be published for all secondary schools and BTVET institutions.
- (d) The Handbook shall cover key financial management aspects including:
 - (i) Institution's resources management responsibility
 - (ii) Accounting policies and Audit requirements
 - (iii) Receipt and recording of funds
 - (iv) Cheque payments
 - (v) Petty cash limits, payments and replenishments
 - (vi) Imprest processing and accounting
 - (vii) Operating bank accounts and bank reconciliation statements
 - (viii) Stores control and physical verification procedures
 - (ix) Physical verification of stores and fixed assets
 - (x) Annual financial reporting
 - (xi) School plan and budget
- (d) A sample of detailed explanation of records maintained and formats is provided in Annex 9.

6.0 Procurement

Secondary schools and BTVET institutions will use the GoU/PPDA Procurement Procedures and Regulations.

7.0 Capacity building

The UPPET Implementation Committee will ensure that responsible officers in beneficiary secondary schools and BTVET institutions are provided with proper training of UPPET accounting and reporting requirements.

8.0 Anticipated challenges/risks

The following are the anticipated challenges/risks that are likely be encountered:

- (a) Inadequate accounting and reporting capacity at the school level.
- (b) Unreported changes of bank accounts and unreported new school bank accounts.
- (c) Failure to operate current accounts that allow payment by cheques.
- (d) Funds unaccompanied by circulars to show the intended use
- (e) Head teachers' non-compliance with accounting and reporting requirements.

9.0 Areas of departure that may require policy review

- (a) **Vote control.** Releases will be made from vote 013 controlled by PS/ES not Chief Administrative Officers (CAOs) and Town Clerks, as has been the case before.
- (b) **Releases procedure.** Releases will be made directly from MoES Holding Account in Bank of Uganda to school accounts and not through CAOs and Town Clerks.
- (c) **Accountability.** Head teachers will submit accountabilities directly to PS/ES and not through CAOs or Town Clerks.
- (d) **Responsibility Centers.**

	Responsibility	Role
1.	PS/ST	Releases funds from withholding account to UPPET Holding Account in Bank of Uganda.
2.	PS/ES	<ul style="list-style-type: none">• Provides release advise to Director Banking, Bank of Uganda• Preparation of progress reports and accountabilities to Auditor General• Timely release of funds to school accounts• Budgeting for resources
3.	School Head teachers	Prepare and submit quarterly accountabilities and progress report to PS/ES
4.	Commercial Bank	Receive funds from the holding account
5.	Board of Governors	Approval of expenditures in line with eligible expenditure categories.

APPENDIX 3: SECONDARY TEXTBOOK COSTING



Secondary Textbook
Costing Spreadsheet

APPENDIX 4: SECONDARY BVTET TEXTBOOK COSTING



Secondary BVTET
Textbook Costing Spr

APPENDIX 5: PROBLEMS WITH MOES CENTRALISED SECONDARY TEXTBOOK PURCHASES

- ❑ Many of the textbooks supplied by the MoES were not compatible with the textbook sets, which schools had been developing and maintaining. In these cases the books supplied often went into the school library where they were used for reference. They did not necessarily improve the basic textbook:pupil ratios
- ❑ Most schools would rather have the money to select and buy their own textbooks according to their own clearly defined needs. This is universally perceived to be a more efficient way of utilising MOES textbook funding
- ❑ Distribution arrangements were perceived to be haphazard and unreliable. If schools were provided with purchasing power so that they could buy from local booksellers, then the booksellers would take responsibility for delivery, which would save schools time and money (*vide* decentralised textbook procurement and distribution policies at the primary level).
- ❑ Distribution arrangements for the textbooks bought by the Ministry have largely relied on the schools collecting from the central Ministry stores in Kampala. The storekeeper allocates collection days to different schools to avoid congestion. Schools have reported problems with this procedure as a result of delays in notifying schools of their allocation of textbooks following receipt of stocks by the Ministry
- ❑ MOES secondary textbook selection policy has been perceived in the past to lack full transparency.
- ❑ Almost all surveyed schools would prefer the establishment of an MOES approved or recommended list of textbooks, organised by subject and grade level, from which they could choose their titles. During both the 2002 and the 2007 surveys, all schools (100% in both cases) said that they would strongly welcome a MoES approved secondary textbook list
- ❑ Current procurement procedures do not necessarily achieve good prices and best value for money and are in need of reform along the lines of the primary textbook procurement guidelines.