More Students, Less Money
Findings from the Secondary Education PETS

1. Introduction

After dramatically increasing enrolment in primary schooling, the Government of Tanzania is now implementing an ambitious program to expand secondary education. However, this expansion has placed its own strains on resources and there are many questions about how the policy works in practice. Do the funds flow smoothly? Do schools get money on time? Is the amount adequate? Is it predictable? Is there accountability for failure to implement policy? How are funding flows related to quality of education and performance?

Public expenditure tracking surveys can serve as one useful tool to answer these questions. In 2009, the Government in collaboration with education stakeholders commissioned a Public Expenditure Tracking Survey (PETS) of primary and secondary education in Tanzania Mainland. This brief presents findings of the PETS concerning flow of resources for secondary education and explores how this is linked to performance of schools. A separate brief touches on similar issues for primary education.

The aim is to make the PETS findings accessible to a broader audience and to facilitate wider understanding and debate of the link between resource flow problems and educational performance. The brief shows that turning a blind eye to these problems undermines progress and could lead to further inequalities building up between schools and district councils.

The source of all data presented herein is URT (2010), Public Expenditure Tracking Survey of primary and secondary Education, Final report February 2010, Dar es Salaam, Ministry of Education and Vocational Training.

2. Key Findings

Finding 1: More money for education, but less per student for secondary education

The share of the education budget that is allocated to secondary education has fluctuated over recent years. At 9.8 percent in 2008/09, it was at its lowest share of total education budget in the past four years. During this time, allocation per student also declined sharply in nominal as well as real terms. In 2008/09 allocated budget per student was about Tshs 135,000, compared to Tshs 281,000 per student in 2005/06. In FY 2007/08, for which PETS tracks resources, secondary education allocation amounted to Tshs 170.2 billion, equivalent to an allocation of only Tshs 150,789 shillings per enrolled student.

These findings raise concern as to whether the level of resources made available is commensurate with the Government's commitment to expand secondary schooling. With school conditions being poor, one would have expected more funds per student being made available, not less.

Figure 1: Budget allocation for education sub-sectors 2005/06-2008/09
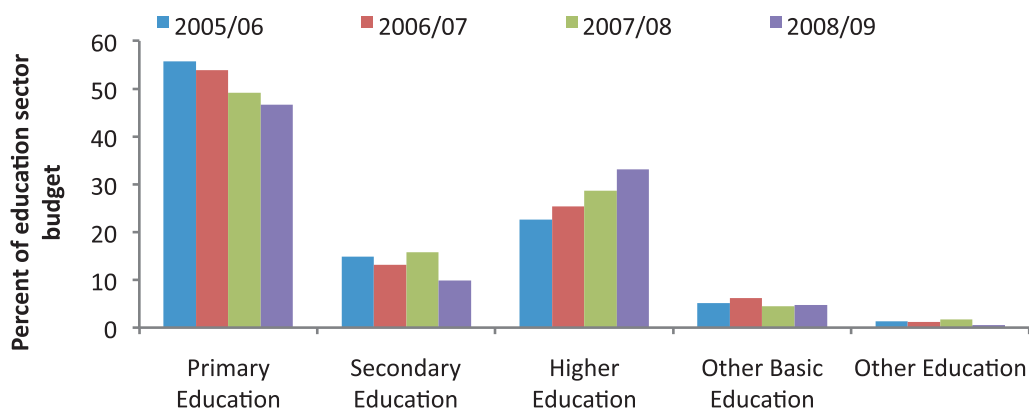
Finding 2: Not all money is released, other revenues raised by schools must fill the gap

For FY 2008, the amount of funds released for secondary education was 92 percent of the approved budget, which compares favourably with primary education [where it was 87 percent]. Funds to cover personnel costs were generally released as approved. However, this is not the case for money intended for purchase of teaching materials. By the end of the fiscal year only 56 percent of the approved budget for teaching materials had been released. Considering the importance of these items for learning, it raises questions on how government expects teachers to teach effectively and students to learn when the bare essentials are not provided.

Figure 2: Budget allocation, release and expenditure for secondary education 2007/08
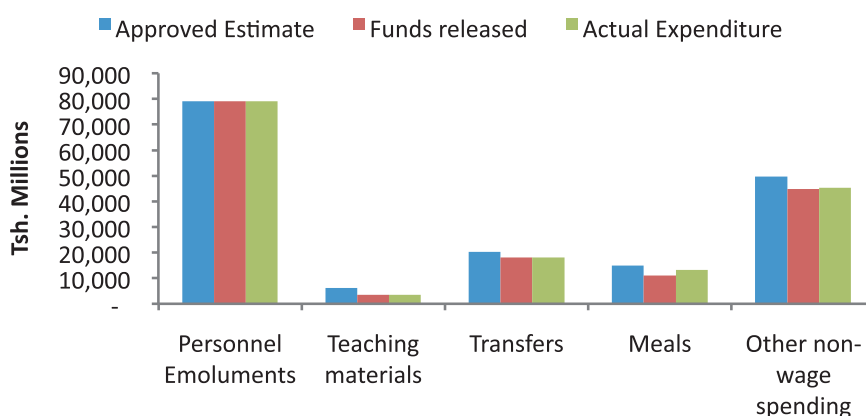
The shortfall may also exacerbate inequities on the ground, as parents are asked to make up for shortfalls through contributions and self reliance projects, and provision of meals.

Finding 3: Flow of funds is straightforward, but still money arrives late

Secondary schools receive finances for their operations through regional sub-treasury offices on authority of a warrant of funds. Upon request by heads of schools, the funds are disbursed directly from the sub-treasury offices to the school accounts. This ease of movement of resources is possible because, unlike primary education, secondary education did not have to deal with several intermediaries in the resource channel. However, as is the case in primary education, both capitation and development grants are still received at the schools after considerable delays.

The first disbursement of capitation grants in 2007/08, for example, was on average received in November/December of 2007, about 5-6 months after the start of the financial year. This is an average and there are considerable variations in the timing of receipts between schools. Some waited for less than two months for their capitation grants; others were forced to wait for between 257 and 474 days before they received the grants.

Table 1: FY 2007/08 School Receipt of the first capitation grant allocation- average number of days

School Location	Average	Minimum	Maximum
Dar es Salaam	137	100	257
Other Urban	146	72	269
Rural	185	43	474
Type of School	**Average**	**Maximum**	**Minimum**
Community	165	43	474
Government	172	100	269
Grand Total	165	43	474

A similar pattern is revealed for development grants, where the first instalment on average reached schools in rural areas 225 days after the start of the year. While the actual release dates from sub-treasuries could not be established, it is possible that some of the delays were caused by transactional delays while transfer instructions were already in the hands of bankers. PETS' findings for primary education suggested that in addition to administrative delays in the government, some bank branches delayed crediting school accounts even after they have been given instructions to transfer. In some cases, the money that was credited in the accounts was lower than the amounts stated in the instructions given to the banks.

Table 2: FY 2007/08 School Receipt of first development grant allocation- average number of days

School Location	Average	Minimum	Maximum
Dar es Salaam	230	137	290
Other Urban	191	109	302
Rural	245	29	476
Type of School	**Average**	**Minimum**	**Maximum**
Community	221	29	476
Government	302	302	302
Grand Total	**225**	**29**	**476**

The PETS findings suggest that the government intends to transfer resources to secondary schools through Councils as part of its decentralisation policy. However, the multiple channelling of resources and the related delays experienced in transferring funds for primary schools through Councils, indicate that disbursing funds directly to schools is a far better approach. What is needed most in this case is improving efficiency in the processing of fund releases by reduction of bureaucracy in the government and ensuring that bankers remit funds to the school accounts on time.

Finding 4: Rural schools have fewer teachers per student than urban schools

Schools in rural areas have higher student teacher ratios than their urban counterparts. What this means is that a teacher in rural areas has more students to attend to than a teacher in urban areas. Based on the PETS data, when all licensed teachers (teachers who have only form six certificates) and teachers in government payroll are taken into account, a typical teacher in Dar es Salaam and other urban areas attends between 28 and 29 students, while in rural areas the comparable figure is 34. When only teachers on government's payroll are considered, one teacher attends to 32 students in Dar es Salaam, while a teacher in other urban and rural areas attends 43 students. Significant variations also exist between schools, in urban as well as rural areas, as can be seen in table 3 below.

Table 3: Student teacher ratio in urban and rural secondary schools

All teachers (including licensed teachers)	Average	Minimum	Maximum
Dar es Salaam	29	17	42
Other urban	28	6	81
Rural areas	34	7	62
Total	**29**	**6**	**81**
Teachers in Government Payroll only	**Average**	**Minimum**	**Maximum**
Dar es Salaam	32	17	50
Other urban	43	14	119
Rural	43	8	71
Total	**41**	**8**	**119**

Finding 5: Community schools have fewer teachers per student than Government schools

Community schools[1] suffer disproportionately from shortage of teachers compared to government schools. When teacher to student ratios for community schools are considered, one finds that teachers there have more students to attend than those in government schools. A teacher in a community school who is on the government payroll on average attends to 43 students while a teacher in a government school attends 18 students only. The workload of a teacher in a community school is more than twice the workload a teacher in a government school (Table 4).

Table 4: Student Teacher Ratio in community and government schools

| All teachers (including licensed teachers)	Average	Minimum	Maximum
Community	29	6	81
Government	16	7	25
Total	**29**	**6**	**81**
Teachers in Government Payroll only	**Average**	**Minimum**	**Maximum**
Community	43	14	119
Government	18	8	29
Total	**41**	**8**	**119**

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[1] Community schools are largely built through contributions from *wananchi* with partial support for infrastructure from the Government. Once community schools are established, the Government is usually requested to allocate teachers to them. According to the PETS, the rural population depends to a large extent on these community secondary schools for their children's education, while urban areas are mostly served by government secondary schools.

Community schools attempt to make-up for the inadequacy of government funded teachers by using school contributions to hire teachers on contractual terms, and/or paying allowance to teachers in other government schools to come and teach in the community schools on part time basis. Since rural populations tend to be predominantly poor, they bear a larger additional cost to get teachers in the schools than their relatively well-off counterparts in urban areas, where most teachers are in the government payroll.

Finding 6: Government and urban schools have more qualified teachers

Community schools have more teachers with lower qualifications than their government counterparts. Similarly, teachers in rural areas have generally lower qualifications than their urban counterparts. As is evident from Figure 3 below, the highest share of teachers in government schools are graduates, followed by diploma holders. Very few government schools employ teachers who have only completed form VI (licensed teachers). On the other hand, teachers with only form VI certificate under their belt account for about 30 percent of the teaching staff in rural and community schools.

Figure 3: Distribution of teachers by qualifications in rural rural/urban and community/government schools

Finding 7: Government schools have more resources for teaching materials
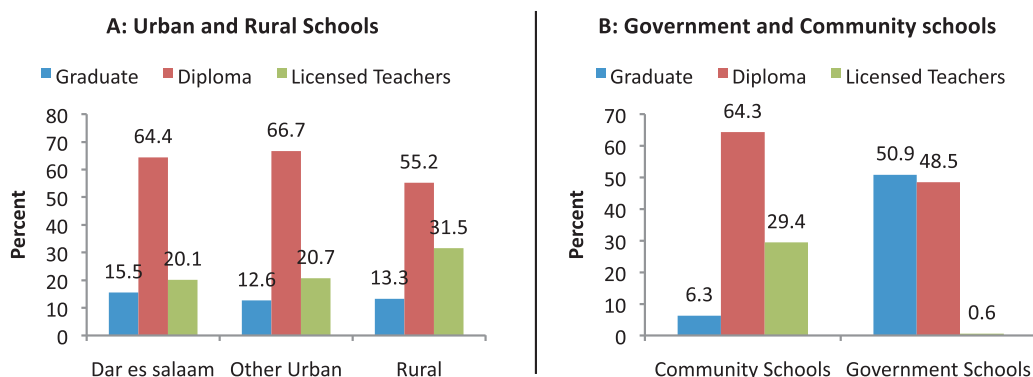
Finding 7: Government schools have more resources for teaching materials

When expenditure on learning materials and cost of teachers per pupil are considered, significant disparities are visible between urban/rural and community/government schools, as can be seen from Table 5 below. With regard to textbooks and teaching materials, urban and government schools, especially those in Dar es Salaam, spend significantly more per pupil than rural and community schools. In the case of teachers' expenses, rural schools and in particular community schools spend a significant share of their resources to employ extra teachers over and above the teachers employed on the government payroll in an attempt to correct for shortage of teachers. Community and rural schools spend more on construction which is explained by the fact that many schools were opened before construction of facilities was been completed.

Table 5: Secondary school structure of expenditure by schools in shillings per pupil

| School location	teachers on govt payroll	teachers not on govt. payroll	textbooks /teaching material	stationery	schools meals	Const. /rehab.	Furniture & repair	Other
Dar es Salaam	2084	1713	10227	4687	1733	8587	938	6304
Other Urban	3501	2764	7673	3077	3473	15907	918	2897
Rural	3220	6906	6754	3644	16070	12254	1942	6211
Type of School	**teachers on govt payroll**	**teachers not on govt. payroll**	**textbooks /teaching material**	**stationery**	**schools meals**	**Const. /rehab.**	**Furniture & repair**	**Other**
Community	2947	8825	7383	3755	3721	13479	1558	5137
Government	3858	2402	11850	3547	59197	2904	132	6698
Total	3036	5490	7821	3735	9160	12442	1418	5290

Finding 8: Teachers are often absent

Teacher absence was recorded in 56 percent of the schools in the sample, and in some schools as many as 70 percent of the teachers were not present at the time when the data was collected. The incidence of teacher absence is highest in rural schools relative to urban schools and in government schools relative to community schools (Figure 4). Most of the teachers who were absent (89 percent) were teachers on government payroll. Remarkably, the reason for absence of many teachers was reportedly unknown to the school administrations.

Since teachers' wages are a significant cost element in education, absence of teachers from their assigned places of work means that billions of shillings are wasted. Unless a more robust monitoring and accountability mechanism is developed and enforced with integrity, new investments in education may fail to deliver value for money and lead to a more skilled society.

Figure 4: Absent teachers as a percentage of total number of teachers in the schools—Survey data

A: Urban and Rural Schools
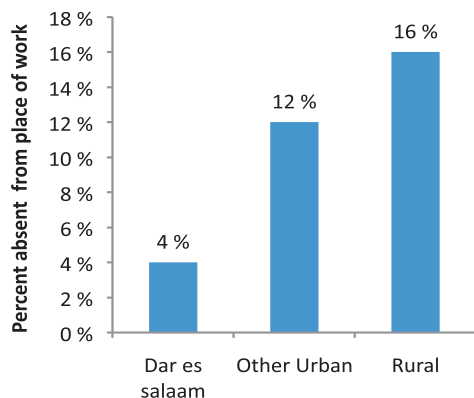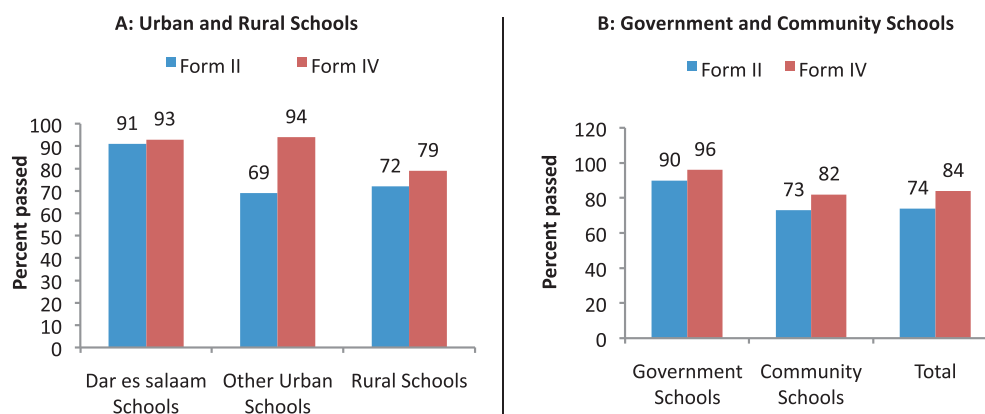

B: Government and Community Schools
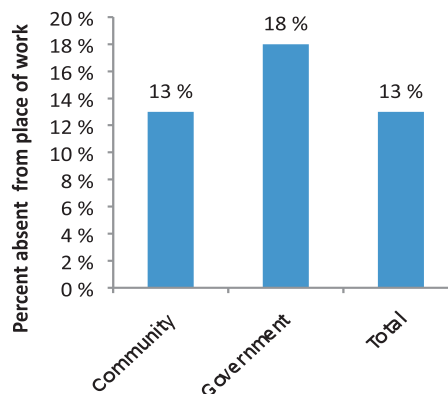
Finding 9: Community and rural schools perform poorly in examinations

The PETS uses examination pass rates as proxy for quality of education and learning in schools. It shows that government schools have generally better performance in the Certificate of Secondary Education Examination (CSEE) than community schools. Similarly, schools in urban areas show generally better performance than rural schools. This pattern exists in both Form II and Form IV exams (Figure 5).

Rather than the number of teachers, or simply the teacher/student ratio, this performance is correlated with qualifications of teachers. Schools that have teachers with higher levels of education display higher pass rates than schools with teachers with lower qualifications, irrespective of the student teacher ratio in the schools. It also happens that schools with highly qualified teachers receive more resources and have higher wage related expenditures. However, it is difficult to establish whether this factor drives performance, unless we have controlled for other underlying factors such as wealth status of students or their parental education levels.

Figure 5: Form II and IV pass rates –survey data 2008

Notwithstanding this caveat, the data raises questions about the practice of contracting teachers with insufficient qualifications to serve rural and community schools and its potential impact on performance.

Finding 10: Information management is weak; data discrepancies are commonplace

An effective mechanism for accountability requires that financial and other data on secondary schools is collected, analysed, stored and reported in formats that makes it possible to track resources to the lowest level spending units, i.e. schools. Verification of accuracy of information generated at different levels would also be done to ensure that information is consistent and credible to be used for policy making.

The PETS, however, finds several problems in this area. The payroll data at the Government Public Service Management (President's Office-Public Service Management (PO-PSM)) unit does not make it possible to track salary (PE) resources to the schools they are intended to benefit. The lowest level that could be reached is the 'pay station' which is a school making payments to teachers in several other schools. At the time of the survey, neither the regional sub treasuries nor the schools had data on Personnel Emoluments (PE) by schools.

Added to that, the Education Management Information System (EMIS) database of the Ministry of Education and Vocational Training (MOEVT) showed a different number of schools in the school year compared to data in the school registry file maintained by the same Ministry. Absence of unique codes for identifying schools as well as their location and ownership meant that the same school may appear with different ownership classification in different databases. Due to naming and classification errors, some private schools were classified as government and reportedly allocated grants they were not eligible to receive in the first place. In addition, the EMIS database, the TSS forms and school level data also provide inconsistent data.

These shortfalls raise questions as to how credible the information generated across the education management chain is for planning and policy making. For accountability purposes, it is crucial that quality and level of disaggregation of information on all aspects of education system is improved, and that information is made fully transparent to all.

3. Conclusion

The PETS shows that allocation of funds for secondary education has fallen sharply in recent years, which raises questions as to whether the resources being allocated can support the goal of delivering quality, equitable education to all.

Furthermore, funds take time to reach schools, and except for money for personnel emoluments, other resources are rarely fully released resulting in low budget execution.

The PETS has also shown that community schools and schools in rural areas receive relatively fewer resources; that rural and community schools have proportionately fewer qualified teachers, and that the rate of absenteeism of teachers is much higher in rural areas than elsewhere. As a consequence rural and community schools perform poorly in CSEE.

The information being generated at different levels in the education chain also is plagued with discrepancies raiding questions as to how credible the information is for policy and planning purposes.

What can be done to correct these problems? We suggest the following four interventions:

1. Allocate more funds per student to secondary education. Resources need to increase to meet the requirement to meet the intended goals. Step up resources for teaching and learning materials for rural and community schools.

2. Improve efficiency in processing funds by cutting down bureaucracy in the chain. This can be achieved by ensuring that the government processes money on time and obliges banks to transfer it immediately to the school accounts.

3. Avail more qualified teachers to rural and community schools. Address the reasons that discourage qualified teachers from staying in rural and community schools. This can be done by adopting incentives to attract more teachers in rural communities, for instance by giving higher salaries and other benefits to teachers in rural areas than urban areas.

4. Improve information management in the sector by establishing a mechanism for reconciling data discrepancies regarding various inputs (teacher deployment, school enrolments, etc). Good policies require credible information management.

Getting this done is possible; all that is needed is the will and commitment to carry it out!

References

URT (2010), Public Expenditure Tracking Survey of Primary and Secondary Education, Final report February 2010, Dar es Salaam, Ministry of Education and Vocational Training