



Southern and Eastern Africa Consortium  
for Monitoring Educational Quality

## Quality of Primary School Inputs in Tanzania Mainland

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### Introduction

This paper highlights the quality of four primary school inputs in Tanzania in relation to the nation's defined benchmarks. The four inputs are: basic learning materials, mathematics textbooks, pupil-teacher ratios, and class size. These four indicators are described in the section titled Selected Indicators, where it is also shown how they are related to the quality of education. The data used in this paper were collected in 2007 from 4,194 Standard 6 pupils in 196 primary schools in all eleven zones in Tanzania. This was as part of a major international study known as the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) III Project. The SACMEQ III Project sought to examine the quality of education provided in primary schools in Tanzania and 14 other African school systems.

The results in this paper cover Tanzania as a whole, and are then further disaggregated by zone and school location (rural versus urban). The results from the SACMEQ II Project (2000) are also provided, to enable monitoring the general trend in the provision of the selected inputs in primary schools in Tanzania between 2000 and 2007.

### Background

Universal Primary Education (UPE) was introduced in Tanzania for the first time in 1974. In 1995, Tanzania formulated its Education and Training Policy (ETP) in which UPE was re-emphasized. Among the main features of the ETP were: the decentralization of the management and administration of primary education to local government and communities; compulsory enrolment of all school-age children;

and full attendance (Ministry of Education and Culture (MoEC), 1995)

In 2002, Tanzania initiated the Primary Education Development Programme, Phase I in an effort to realize the Education for All (EFA) goals (MoEC, 2006a). This programme was implemented in phases, and it is currently in Phase II (Primary Education Development Programme (PEDP) 2007-2011). Under the PEDP, school fees were abolished and schools are not allowed to collect contributions from parents unless they are granted permission by the Commissioner for Education. Before this permission is granted, parents have to agree to these contributions and the proposal has to be endorsed by the district education authorities.

Under the PEDP, the central government is responsible for the payment of teachers' salaries and the provision of instructional materials to schools. Local governments are responsible for the operational expenses and management of primary schools, while parents are responsible for the provision of basic learning materials, such as exercise books, pencils and rulers. In addition, the local governments (with the support of the local communities) are responsible for the construction and maintenance of school buildings. There are funds (known as the Development Grant) set aside under PEDP for the construction of classrooms, teachers' housing, toilets, and the improvement of existing school buildings and facilities.

Under the PEDP, head teachers were given an extra role involving the managing of funds known as the Capitation Grant. This was for purchasing instructional materials, such as textbooks, teachers' guides, and teaching aids. Each school in Tanzania Mainland is required to have a bank account to receive these funds directly from the central

government. Each pupil is allocated 10,000 Tanzanian shillings per year for instructional materials. Schools purchase the instructional materials (including textbooks) directly from booksellers (MoEC, 2006a). Schools can only purchase instructional materials that have been approved by the Educational Book Management Committee (EMAC), as stipulated in the 1991 policy on the production and distribution of school and college textbooks (MoEC, 1991).

In addition, under the PEDP, the enforcement of the law on compulsory primary education for all children of school-going age was renewed. Over-age children were enrolled through a tailored initiative, namely, Complementary Basic Education (COBET). The impact of these efforts resulted in a large expansion in enrolments with net enrolment ratios increasing impressively to 97.3 percent in 2007 from 58 percent in 2000 (MoEC, 2006b; MoEC, 2010). Consequently, there were concerns that the quality of primary school inputs in Tanzania had declined under the PEDP, because of overcrowding in classes, high pupil-teacher ratios and insufficient learning materials. Most of these concerns, however, were based on anecdotal evidence.

The SACMEQ data are ideal for examining the quality of school inputs in Tanzania, for at least two reasons. Firstly, the data were collected using modern scientific sampling techniques that are known to be reliable. Secondly, for Tanzania, the data were already available just before the introduction of the PEDP I (SACMEQ II data, 2000)

and then after the introduction of the PEDP II (SACMEQ III, 2007). This made it possible to monitor the quality of school inputs in Tanzania before and after the introduction of the PEDP.

## Selected Indicators

The four selected indicators of the quality of school inputs are: (a) basic learning materials, (b) mathematics textbooks, (c) pupil-teacher ratios, and (d) class size. The descriptions of these four indicators have been provided in Table 1 below together with the set benchmarks for Tanzania.

Basic learning materials (that is, possession of at least one exercise book, something to write with, and a ruler) are considered crucial to ensure that the pupils participate reasonably in learning activities in the classrooms. Therefore, it is desirable for all pupils to have these materials. A ruler is especially important for mathematics and science lessons, particularly for the upper primary school classes (Standards five to seven). Likewise, it is desirable for each pupil to have sole use of a textbook (especially for the core subjects, such as reading, mathematics, and science), because research evidence has shown that sole use of textbooks is essential for effective teaching and learning in the classroom. Sole use of textbooks is also preferable, because it enables pupils to undertake academic activities at home, such as doing homework and revising school work.

**Table 1: National Benchmarks for the Selected Indicators of the Quality of Education**

Selected Indicator	Description of the Indicator	National Benchmark
Basic learning materials	Pupil has at least one exercise book, a pencil or a pen, and a ruler	100%
Mathematics textbooks	Pupil has sole use of a mathematics textbook during mathematics lessons	100%
Pupil-teacher ratios	Total number of pupils in a school divided by number of teachers in the school	40:1
Standard 6 class size	Average number of Standard 6 pupils per class	40

SOURCE: MoEVT (2009).

Concerning pupil-teacher ratios and class size, research evidence shows that lower values are desirable for better quality education. It is thought that, to a certain limit, lower values on these two indicators are associated with more interaction between teachers and pupils, resulting in better quality education. Pupil-teacher ratios and class size are also key indicators for checking if expansion in participation rates is accompanied by adequate provision of teachers and classrooms.

The recommended pupil-teacher ratios and class size for primary schools in Tanzania are 40 pupils per teacher and 40 pupils per class, respectively (MoEVT, 2009).

## Key Findings

The data on the four inputs were analyzed and the results are depicted in Figures 1 to 4.

### Basic Learning Materials

In 2007, 86 percent of the Standard 6 pupils had at least one exercise book, a pencil or a pen, and a ruler. In other words, 14 percent of the pupils did not have all the three basic learning items that were considered necessary for effective participation in classroom activities. There were no great variations among zones, but North East zone recorded the lowest percentage of 78. In addition, there was little variation between pupils in rural schools (85%) and pupils in urban schools (88%).

On average, 79 percent of the pupils in all the SACMEQ countries had basic learning materials. This implied that the situation in Tanzania was better than the overall situation in SACMEQ countries. Moreover, between 2000 and 2007, the percentage for Tanzania increased by 14 points, which meant that the situation had improved considerably since the introduction of PEDP.

### Mathematics Textbooks

The government target is for each pupil to have sole use of a textbook per subject. It is, therefore, worrying that only three percent of the Standard 6 pupils in 2007 had sole use of mathematics textbooks. It is also troubling that the quantity of these textbooks dropped since 2000, when the

percentage of Standard 6 pupils with sole use of mathematics textbooks was seven percent. The textbook situation among SACMEQ countries in 2007 (41%) was much better than the situation in Tanzania.

There were no large variations among the zones. Moreover, the textbook situation in rural schools (3%) was as bad as the situation in urban schools (3%).

These results are very worrying indeed and pose a very big challenge to the Ministry of Education. It is unclear why the mathematics textbooks situation in Tanzania declined between 2000 and 2007. It is particularly puzzling, because each school was provided annually with funds (from the Capitation Grant) for the purchase of textbooks and other instructional materials between 2002 and 2006 under the PEDP Phase I (MoEC, 2006a).

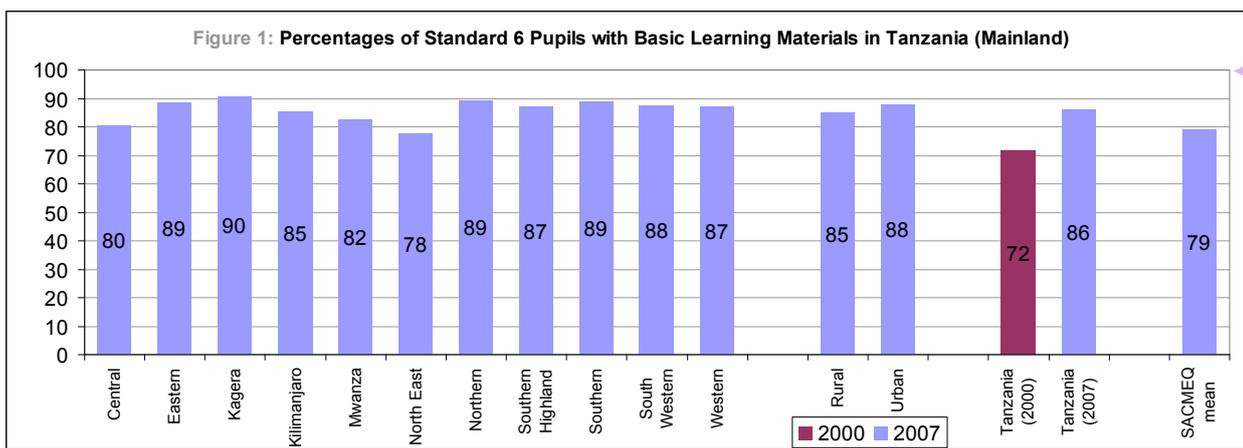
### Pupil-Teacher Ratios

In 2000, the mean pupil-teacher ratio among primary schools in Tanzania was 47. This mean was slightly above the country's set benchmark of 40. However, in 2007, the mean had risen to 63 pupils per teacher, and thus the mean was far beyond the set benchmark. Nevertheless, the mean for urban schools (46) was nearer the set national benchmark, and much better than the mean for rural schools (71). The overall mean for Tanzania (63) was well above the overall SACMEQ mean (43).

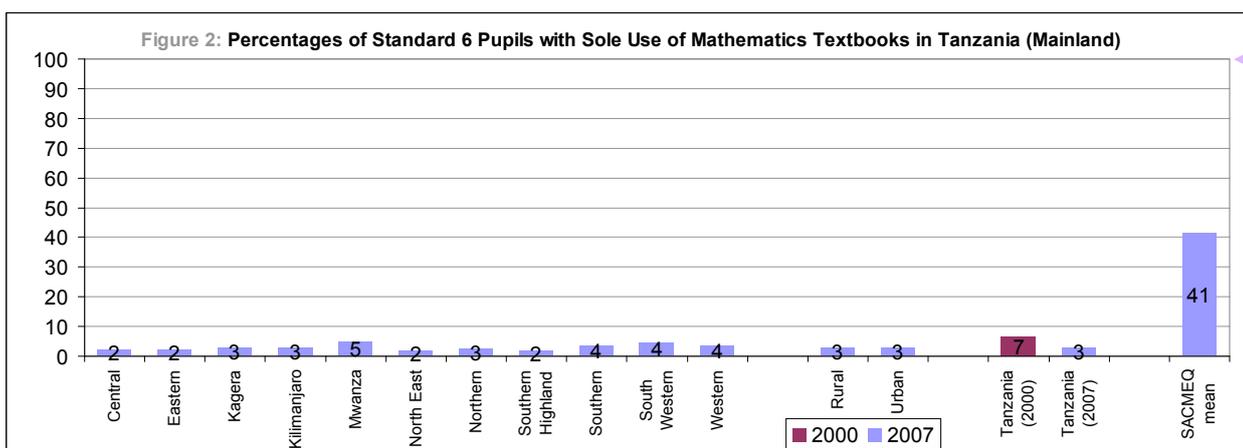
In 2007, there were large variations in the mean pupil-teacher ratios among the zones, and no zones had means within the set benchmark. The means for Eastern (43) and Kilimanjaro (44) were, however, close to the national benchmark. The mean ratios were particularly bad in Western (87) and Mwanza (83), with the average numbers of pupils per teacher in these zones exceeding the national benchmark by 47 and 43 pupils, respectively.

### Class Size

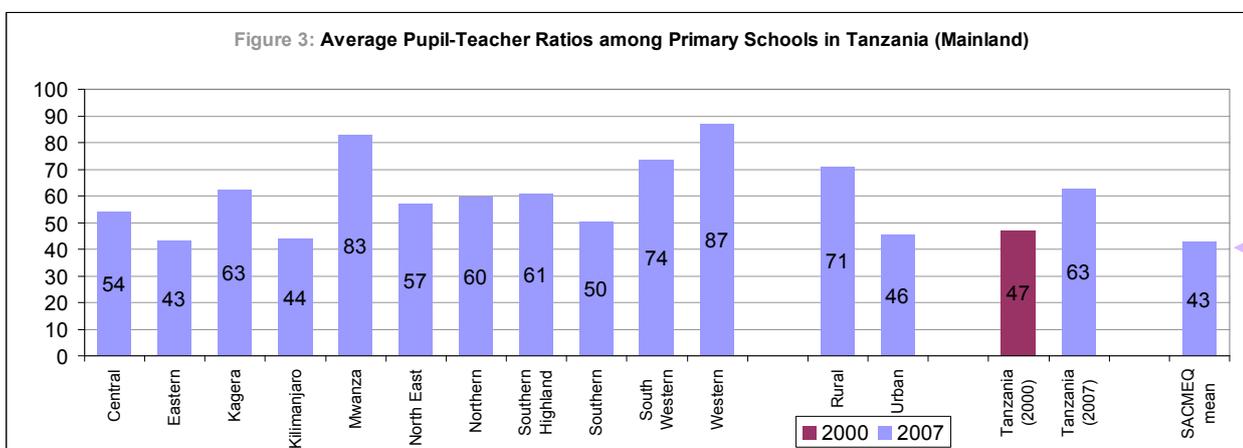
In 2000, the average number of Standard 6 pupils per class among primary schools in Tanzania was 42. This number was just slightly above the country's set benchmark of 40. However, in 2007, the number had risen to 56 pupils per class, and thus the number was well beyond the set benchmark. The number for urban schools (64) was worse than the number for rural schools (52).



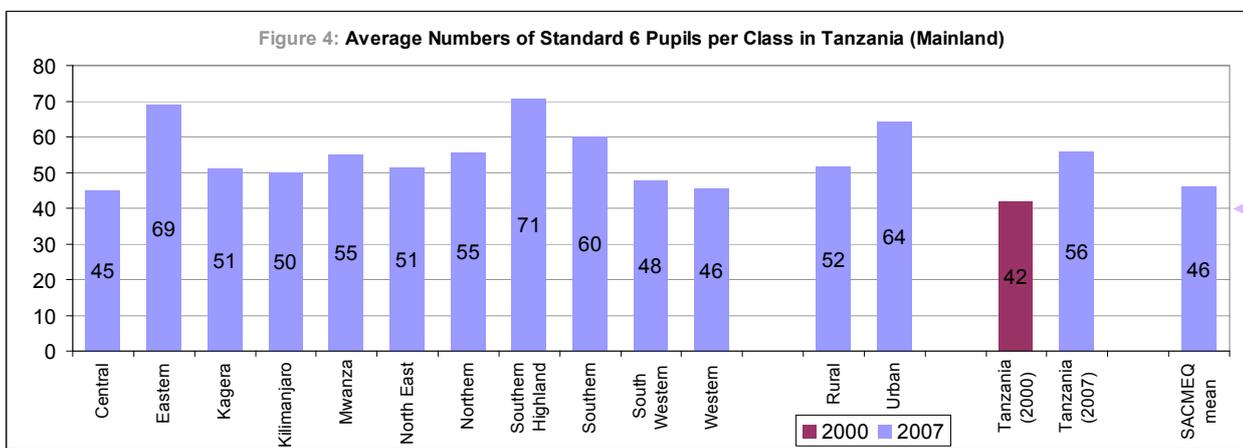
National Benchmark: All primary school pupils in Tanzania are expected to have basic learning materials (100%)



National Benchmark: All primary school pupils in Tanzania are expected to have a mathematics textbook (100%)



National Benchmark: 40 pupils per teacher in primary schools



National Benchmark: 40 pupils per class in primary schools

SOURCES of Figures 1 to 4: SACMEQ Data Archive.

There were large variations in the average numbers of Standard 6 pupils per class among the zones. Southern Highland (71) and Central (45) recorded the highest and the lowest numbers, respectively. The overall number for SACMEQ (46) was much lower (hence, better) than the number for Tanzania.

There are several reasons that could explain the disparities in class sizes between urban and rural settings in Tanzania. Classrooms are built by local governments in collaboration with the local communities. However, community response to classroom construction in urban areas is known to be less enthusiastic than in the rural areas. The other probable reason could be the growing school-age population in urban settings, as a result of the rural population migrating to urban areas in search of work.

## Summary of Findings

This study showed that 14 percent of Standard 6 pupils did not have all the three basic learning materials needed for effective participation in classroom activities. Furthermore, 97 percent of the pupils did not have sole use of mathematics textbooks.

This study also revealed that mean pupil-teacher ratio (63) greatly exceeded Tanzania's benchmark of 40 pupils per teacher. In addition, the average number of Standard 6 pupils per class exceeded the national benchmark of 40 in all zones.

## Policy Suggestions

Regarding the problems with the provision of basic learning materials and textbooks in Tanzanian primary schools, the following policy options could be considered.

1. The Ministry of Education (Department of Primary Education) in collaboration with the Prime Minister's Office, Regional Administration and Local Government (PMO-RALG) could examine why there were dismal shortages of

mathematics textbooks in primary schools in Tanzania mainland.

2. The School Inspectorate Department, in collaboration with the District Education Offices (DEO), could put in place mechanisms for annually monitoring the levels of instructional materials and textbooks in schools. Information obtained from such monitoring could be used by the central government to review the amount of funds allocated to schools for instructional materials and textbooks.
3. Concerning the need to improve pupil-teacher ratios and class sizes in Tanzanian primary schools, the Department of Primary Education, in collaboration with PMO-RALG, should review the formula for the allocation of available teachers in favour of the rural schools and the most disadvantaged zones.
4. The Department of Teacher Education should train more teachers to alleviate the situation in primary schools in all the zones in Tanzania.
5. The PMO-RALG should mobilize local communities, especially in the urban settings, to construct more classrooms.
6. The School Inspectorate Department, in collaboration with the DEOs, could annually conduct an audit of class sizes in all the zones. This information should be taken into account by the PMO-RALG when planning and allocating money to the zones for the construction of new classrooms and schools.
7. The Regional Education Offices, the District Education Offices, and the head teachers in Southern Highland, Eastern, and Southern zones should consider use of the double-shift system, as a short-term solution to reduce the class sizes to meet the nation's benchmark of 40 pupils per class.

## Conclusions

This policy brief highlighted the quality of primary school inputs in Tanzania using four indicators, namely: (a) basic learning materials, (b) mathematics textbooks, (c) pupil-teacher ratios, and (d) class size. Against the country's own set

benchmarks, Tanzania scored fairly in the provision of basic learning materials and poorly in sole use of textbooks. Tanzania also scored poorly on pupil-teacher ratios and class sizes, which is the sign of an inadequate supply of teachers and classrooms.

Furthermore, the situation in Tanzanian schools was much bleaker for three out of the four indicators – mathematics textbooks, pupil-teacher ratios, and class sizes – than the overall situation in SACMEQ countries in 2007. Moreover, concerning pupil-teacher ratios and class sizes, the results showed that Tanzania declined between 2000 and 2007. This decline warrants urgent attention by the Ministry of Education and Local Government in order to improve the learning environment in primary schools in Tanzania.

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## Abbreviations and Acronyms

COBET	Complementary Basic Education
DEO	District Education Office
EFA	Education for All
EMAC	Educational Book Management Approval Committee
ETP	Education and Training Policy
MoEC	Ministry of Education and Culture
MoEVT	Ministry of Education and Vocational Training
PEDP	Primary Education Development Programme
PMO-	Prime Minister's Office, Regional Administration and Local
RALG	Government
UPE	Universal Primary Education

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*This policy brief was written by Ponera G. E (geponera@gmail.com), Mhonyiwa, J. E. (julianaemhonyiwa@yahoo.com), and Mrutu, A.S. (amrutu63@yahoo.co.uk). For more information about SACMEQ, visit website: [www.sacmeq.org](http://www.sacmeq.org)*