# EQUIP-Tanzania Impact Evaluation

## Endline Cost Study

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# Executive summary

## Introduction

This report presents the findings from the cost study that forms part of the endline round of the impact evaluation of the Education Quality Improvement Programme in Tanzania (EQUIP-T). EQUIP-T is a Government of Tanzania programme funded by the UK Department for International Development (DFID). The endline is part of a mixed-methods evaluation that began with a baseline in 2014 and was followed by a midline in 2016; it will end in 2020. The endline is made up of four products: a quantitative endline study carried out in 2018 (OPM, 2019a); a qualitative study conducted in 2019 (OPM, 2020a); a cost study also conducted in 2019; and a final summary report which draws on all three technical studies (OPM, 2020b). The final report summarises findings according to the five OECD Development Assistance Committee evaluation criteria: relevance, effectiveness, impact, efficiency, and sustainability.

## Objectives

The study seeks to answer two overarching evaluation questions, and in doing so investigates five more detailed research questions, as set out below.

**Evaluation question 1: How efficiently has EQUIP-T been implemented, considering its intended outputs? What lessons can be learned?**

1. What has the programme cost to deliver, and what have been the main cost elements?
2. Has programme budget planning and execution been efficient? How high are annual budget execution rates? What categories/activities are over-spent and which are under-spent?
3. How cost-efficient has the programme been in delivering (selected) outputs?

**Evaluation question 2: Is replicating and/or scaling-up elements of EQUIP-T affordable for the Government of Tanzania?**

1. How much would it cost on an annual basis to:
    a. replicate elements of the programme in its current regions (using government funding and management systems)?
    b. scale up elements of the programme to additional regions (using government funding and management systems)?
2. How affordable would it be for government to replicate or to scale up the programme?

For Evaluation question 2, the study focuses on three of the six elements of EQUIP-T that the government, led by the President's Office Regional Administration and Local Government (PO-RALG), has signalled its intention to replicate and scale up. The elements of focus are: (i) school-based professional development for teachers (in-service training – INSET); (ii) parent–teacher partnerships (PTPs); and (iii) income-generating activities (IGAs). This commitment from the government is a positive signal of the level of ownership and buy-in for the EQUIP-T programme, and its potential sustainability. Of course, continuing the six elements will be financially difficult, but this study looks at opportunities to support the government with this objective.

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## Methodology

The study has employed two methodologies. The first question was answered by using data from the EQUIP-T managing agent (MA) on budgets, spending, and monitoring data, as well as reviewing EQUIP-T MA programme documents. The second question was answered by developing a bottom-up costing model, with the costs and units built on assumptions which draw from EQUIP-T documents and interviews with MA staff and government officers at various levels of implementation. The final step – affordability – drew on education budget data available in existing reports.

## How efficiently has EQUIP-T been implemented, considering its intended outputs? What lessons can be learned?

Analysis of budget execution rates gives an indication of implementation efficiency because it shows how successfully a programme was able to plan its activities and costs and then implement according to that plan. Where there were over- or under-spends, the analysis would look at the reasons why. The efficiency of EQUIP-T's budget execution is difficult to assess meaningfully given the limitations in the programme's budget and expenditure data. For example, budgets are largely not held using the same level of geographic or activity disaggregation as the expenditure data. To assess the efficiency of fund management, it would be reasonable to report annual (or some medium-term period) budgets, spending, and the reasons for deviations. Budget variance may be a positive thing (where funds are re-directed towards activities with a greater likelihood of success), but this should be reported and explained. DFID agreed the original budget and extension budget, and the broad tranche budgets, but the documentation in more recent programme annual reports suggests that only a limited annual review of the entire programme budget and execution (with no disaggregation) has been carried out. The data and reporting limitations are themselves indicators of weaknesses in the programme's management, as the MA could have had a more thorough and aligned approach for budgeting and expenditure tracking, which in turn would feed into decision making about subsequent tranches. As a recent fiduciary risk assessment (FRA) concluded, financial reporting 'needs to be much improved' (KPMG, 2019, p. 16).

The programme as a whole cost over £72 million to deliver since its start in February 2014 up to June 2019, and there were still six months of the programme to be completed at that point. More than one quarter of this spending was technical assistance (TA) fees and expenses, leaving three quarters as programme support activity (PSA) spending at MA and local government authority (LGA) level.

Component 1, targeted at improving access to high-quality education, made up 56% of PSA spending; the largest portion of this was the teacher professional development model, using district-level, ward/cluster, and school-based INSET. On average, the programme has spent £5,900 per school to deliver the complete package of support to teachers and the school readiness programme (SRP).[1] School construction, which was introduced after the programme extension in 2017, also contributes a substantial portion of overall costs.

The other components each take between 7% and 14% of total PSA expenditure. The programme has cost around £1,400 per school to provide the complete package for school leadership and management (SLM) activities, and to train head and assistant head teachers and ward education officers (WEOs). Support to strengthen district planning and management has cost £156,000 per LGA to deliver the complete package. Within this, LGAs in the original seven regions spent on average

[1] These unit costs are based on the average annual number of relevant beneficiaries in the programme. See Section 3.4.1 in the full report for the relevant methodology.

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nearly £2,500 per WEO on WEO grants. The complete package for the community component cost a total of £1,800 per school, which included training for school committees, PTP grants and IGA grants, and school noticeboards. The M&E component cost a total of £3.7 million and included the purchase of tablets for schools, as well as monitoring surveys.

Inconsistent levels of expenditure at the level of LGAs appears to relate to delays in transfers – an issue at the level of central government – and implementation capacity problems at the LGA level, as well as possibly changes from initial plans set by the MA and withheld disbursements due to previous spending issues. Delays in tranche transfers and LGA activities also had a knock-on effect on MA PSA spending. Taken together, the planned budgets appear to have been overly optimistic, and demonstrate the challenge of budgeting in this operating environment.

Cost-efficiency analysis of LGA expenditure reveals some substantial variation in unit costs across regions. This evaluation understands that all LGAs should have implemented the same activities, using the same budgeting formulae. Thus the variation in unit costs could relate to a number of underlying factors which will vary between LGAs and regions: varying levels of capacity to implement the volume of activities in LGAs; failure to implement according to guidelines; legitimately using varied models with differing costs; withheld funds due to unresolved misspending; or errors in the LGA spending data provided by the MA. The difficulty for this evaluation in obtaining a comprehensive and reliable LGA expenditure dataset suggests that expenditure tracking has not been routinely quality-assured, and may still be subject to errors. More routine and regular monitoring of this sort – using average unit costs to verify expenditure data and beneficiary data – is important for programmes to understand what is going on and correct course if needed.

There are a number of other lessons learned with regard to the management of EQUIP-T funds and thus the ability to conduct this analysis. The limitations in the budget structure, without consistent codes mappable to sub-components and without categories for region, represent another problem. Further, the change in the budgeting and disbursement approach for the LGAs was not well documented or justified at the time, from what this evaluation has seen. These issues together create a challenge for accountability and transparency, and are reflected in the programme being rated as a 'substantial risk' in the recent FRA (KPMG, 2019). Finally, the lack of comprehensive and reliable data on the number of beneficiaries[2] creates a challenge for conducting cost-efficiency or cost-effectiveness value for money analysis, as well as limiting how the programme can track, learn from, and communicate its progress.

## Is replicating and/or scaling-up elements of EQUIP-T affordable for the Government of Tanzania?

PO-RALG has expressed its interest in replicating and scaling-up six elements of EQUIP-T. This study has estimated the costs of replicating and scaling-up three of these activities, such that they would be active in all 26 regions of Tanzania. The three activities are teacher INSET, PTPs, and IGA.

Based on a maximum scenario, across a five-year period, these three activities would have an average annual cost of Tanzanian shillings (TZS) 118 billion. INSET makes the most substantial contribution to this, at over 85% of the total cost; PTP and IGA together make up just 15%. Allowances contribute a substantial part of the annual cost, at TZS 42 billion, and reducing allowances to the rates used by EQUIP-T, rather than government rates, would cut TZS 7 billion from the annual cost. The second largest cost is that spent on salaries for the government officials preparing and attending the

[2] OPM is not aware of any routine verification processes or data quality standards applied to the beneficiary data collected by the programme.

activities (TZS 38 billion). If the government is able to absorb this cost within existing workloads and salaries, only TZS 80 billion annually must be factored into a new budget.

If the government were to implement a minimum scenario – without refresher training and without grants – it would reduce the average annual cost for the five-year period to TZS 81 billion. In this scenario, after an initial effort to roll out interventions to new regions, the ongoing costs relate to holding school- and ward/cluster-level INSET meetings, and holding parent meetings. If the salary cost of attending these events is considered part of the existing workload, the ongoing annual cost of these activities is less than TZS 51 billion.

Considering the context of existing education budgets, the non-salary activities in the maximum scenario cost 19% of total LGA non-salary budget, and in the minimum scenario, 12%. With little room for discretion in their non-salary budgets, it is extremely unlikely that LGAs would be able to afford to implement these activities with their existing resource envelope. The outlook for increasing the resources available to education is mixed. The overall government budget is projected to grow in real terms, and if the education sector continues to receive a fixed share of this, it means a substantial real growth in budget. However, there will be other demands on this budget within the sector – more teachers and infrastructure, in particular – and the demands from other sectors are acute. In recent years, the education sector budget has reduced in real terms, indicating that other sectors are a higher priority for this government. Most LGAs have made some provision for EQUIP-T activities in their 2019/20 budgets from own source revenues; however, these revenues have been squeezed by changes to local taxes and levies and are not considered guaranteed in the future. A considerable effort will be required for the education sector to successfully secure an increase in budget for these activities. In order to do this, the ministries responsible for education need to use and present the evidence on why these activities are important and worthwhile for government investment, to appeal to the rationale and priorities of decision makers in the Ministry of Finance and Planning (MoFP), the Cabinet, and Parliament.

## Recommendations

### Recommendations for the Government of Tanzania

Recent trends in the education sector budget suggest that paying for the three activities studied here – teacher INSET, PTPs, and IGA – will not be affordable for the LGAs without additional financial support. The central government should take two actions if it wishes to continue with replicating and scaling-up these activities across the country.

1. First, it must recognise the cost burden and provide sufficient budget for these activities, whether that budget is held and spent at national, regional, LGA, or school level. It is unrealistic to expect LGAs and schools to implement these activities if no provision is made for the costs.
2. Second, MoEST and PO-RALG should strengthen the case for additional spending in the education sector, to put to MoFP and Parliament. This requires reviewing and assessing the evidence, and communicating this evidence to MoFP, the Cabinet, and parliamentarians (who each have a role in approving the final budget).

### Recommendations for DFID

The analysis for this study, particularly of EQUIP-T data, has revealed a number of areas of management which should be strengthened in future. This is important for the efficient management of such a large programme, in which data needs to be well kept and recorded in order for the

implementer to track progress, make informed decisions about programme adjustments, and to be held accountable to the funder, on behalf of UK taxpayers.

1. It is a weakness in oversight arrangements that the MA was not required to report expenditure against a medium-term (such as annual or tranche) budget at a meaningful level of detail. Other than the high-level split between MA funds and decentralised funds, the detailed budgets which do exist appear to be internal tools, with DFID not requiring a regular report of spending against these detailed budget categories. For future programmes, this evaluation recommends that DFID should have closer sight in agreeing and monitoring progress against medium-term budgets, component level budgets, and cumulative spend at a more granular level. There should always be room for iteration as the context and programme change, but there should be a review of the previous period's performance against agreed budgets to guide these iterations and discuss course-correction.
2. There are a number of ways in which the financial system for EQUIP-T could have been set up to aid monitoring and accountability, and the assessment of value for money, and this should be borne in mind for future programmes. An assessment of data accuracy should be built into the programme.

    a. The activity coding structure should strictly relate to sub-component categories. With EQUIP-T, there are challenges because some LGA Epicor codes cut across sub-components. In addition, the initial MA PSA codes were incredibly broad, and sub-codes were ambiguous, making it hard to track the actual spend on various activities.

    b. There needs to be a level of classification in financial data which relates to whether the activity was an overhead/development cost or an implementation cost. This would later allow the costs to be more closely analysed in terms of unit costs per beneficiary, and the variable costs for continuing to roll out activities.

    c. The category for implementation costs should further be coded by which region it related to, or whether it is across all regions.

3. Monitoring data should be more comprehensive and more regularly updated, and ideally should track actual beneficiaries. It should be possible to show data by LGA rather than just by region. This data should be held in one system rather than across multiple documents. As with the financial data, the monitoring data should be subject to some form of systematic verification.

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# List of abbreviations

| | |
|---|---|
| 3Rs | Reading, writing, and arithmetic |
| DFID | Department for International Development |
| EQUIP-T | Education Quality Improvement Programme in Tanzania |
| EMIS | Education management information system |
| FRA | Fiduciary risk assessment |
| IGA | Income-generating activity |
| INSET | In-service training |
| JUU | *Jiamini Uwezo Unao* ('Be confident, you can') |
| LGA | Local Government Authority |
| M&E | Monitoring and Evaluation |
| MA | Managing Agent |
| MoEST | Ministry of Education, Science and Technology |
| MoFP | Ministry of Finance and Planning |
| OPM | Oxford Policy Management |
| OC | Other changes |
| PO-RALG | President's Office Regional Administration and Local Government |
| PSA | Programme support activity |
| PTP | Parent–teacher partnership |
| SIS | School information system |
| SLM | School leadership and management |
| SRP | School Readiness Programme |
| TA | Technical assistance |
| TIE | Tanzania Institute of Education |
| TTC | Teacher training college |
| TZS | Tanzanian shilling |
| USAID | US Agency for International Development |
| WEO | Ward Education Officer |

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# 1 Introduction

## 1.1 Introduction to the impact evaluation and cost study

This report presents the findings from the cost study that forms part of the endline round of the impact evaluation of the EQUIP-T. EQUIP-T is a Government of Tanzania programme funded by DFID. The endline forms part of a mixed-methods evaluation that began with a baseline in 2014 and was followed by a midline in 2016; it will end in 2020. The endline is made up of four products: a quantitative endline study carried out in 2018 (OPM, 2019a); a qualitative study conducted in 2019 (OPM, 2020a); a cost study also conducted in 2019; and a final summary report which draws on all three technical studies (OPM, 2020b).

The overall objectives of the EQUIP-T impact evaluation are to:

- generate evidence on the impact of EQUIP-T on learning outcomes for pupils in primary education, including any differential impacts for girls and boys;
- assess perceptions of the effectiveness of different EQUIP-T components;
- provide evidence on the fiscal affordability of scaling-up EQUIP-T; and
- communicate evidence generated by the impact evaluation to policymakers and key education stakeholders.

This study contributes to the third objective, to provide evidence on the fiscal affordability of scaling-up EQUIP-T.

This report has two primary audiences: the Government of Tanzania, which is considering how to adopt and adapt activities from EQUIP-T and scale up nationally; and DFID, for accountability and learning, particularly as it considers its future education programming in Tanzania. More widely, the report is intended to be of use for education sector stakeholders in Tanzania and beyond in informing education programming. As the EQUIP-T programme started winding down in mid-2019, with final closure in January 2020, these findings will not inform future implementation of EQUIP-T by an MA but are of course relevant to future efforts which build on EQUIP-T's experience. It is assumed that the audience is already familiar with the programme and thus the details of the objectives and modalities of interventions are not provided here. More information on various activities in the scope of the evaluation can be found in the quantitative, qualitative, and final endline reports (OPM 2019a, 2020a, 2020b), and broader information on the EQUIP-T programme can be found in the extension proposal (EQUIP-T, 2017a).

## 1.2 Overview of EQUIP-T

EQUIP-T began in 2014 as a four-year, Government of Tanzania programme funded by DFID. The aim of the programme is to increase the quality of primary education and improve pupil learning outcomes, in particular for girls. Over time, the programme was extended by two years to finish in January 2020, and also in terms of geography (from initially five, to later seven, and eventually nine of the most educationally disadvantaged regions in Tanzania)[3] and activities. The budget extended from approximately £50 million to £90 million, of which £80.2 million was overseen by an MA, Cambridge Education, which works with the government to deliver the programme.

[3] There are 26 regions in mainland Tanzania. The regions in the EQUIP-T programme are Dodoma, Kigoma, Tabora, Shinyanga, and Simiyu, followed by Lindi and Mara, and later Singida and Katavi.

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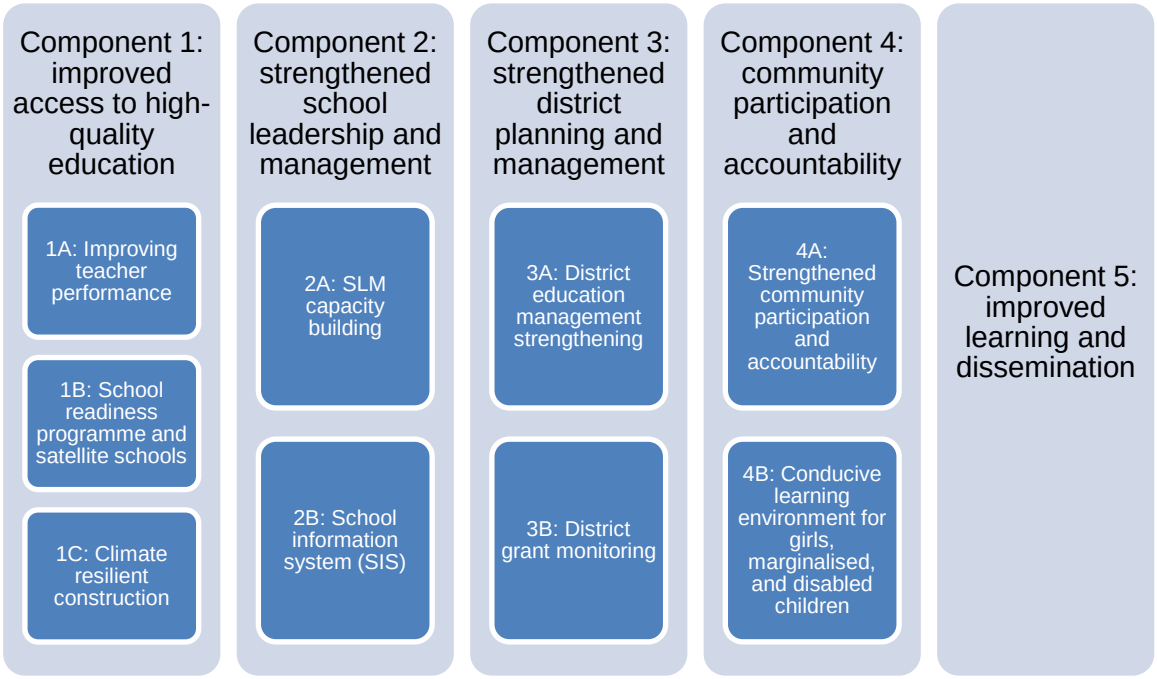
EQUIP-T comprises five components (and 10 sub-components following the extension):

**Figure 1. EQUIP-T's five components**




The programme started with just five of the sub-components (1A, 2A, 3A, 4A, and 5 under the above components); these were originally designed to overcome a set of key constraints that EQUIP-T identified as undermining the capability of pupils in disadvantaged parts of Tanzania to learn to their full potential. Overall, the emphasis of this first set of EQUIP-T interventions is on strengthening the education system to deliver *high-quality* education, and these are the focus of the impact evaluation. (See OPM 2019a for more detail on the extension and implementation of the components.)

The programme's overarching theory of change conceptualises the components as mutually reinforcing in overcoming the barriers identified to pupils' learning at school, community, and district/national level. Taken together, these components are expected to lead to better quality education, especially for girls (EQUIP-T outcome), and to improved learning outcomes, especially for girls across Tanzania (EQUIP-T impact). To support national adoption and the scale-up of successful parts of the programme, EQUIP-T has an institutional strengthening and sustainability strategy integrated into its theory of change. The EQUIP-T MA's updated theory of change is provided in Chapter 2 within OPM (2020b).

Initially, EQUIP-T was designed such that the MA would manage all of the programme funds, and this would involve disbursing some funds to LGAs (also known as districts) or directly to beneficiaries (such as participants at training events). In 2015, the decision was taken to introduce a decentralised implementation model in which a substantial proportion of EQUIP-T's budget would be transferred directly to government, and in turn disbursed to LGAs. Thus, expenditure has taken place broadly at two levels: by the MA, and by the government through the LGA budgets.

A brief description of the key interventions included across the five components is given Table 1. This is not a comprehensive list of all activities implemented under the programme, but is intended to give a sense of the main activities which are referred to at other points in this study.

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## Table 1. Summary of key EQUIP-T interventions

| Intervention | Comp. | Description |
|---|---|---|
| **Component 1 – Access to high-quality education** | | |
| Teacher INSET | 1A | This is a continuous professional development model for teachers. EQUIP-T rolled out modules on literacy and numeracy, the new curriculum, and general and gender-related pedagogy. The literacy, numeracy, and curriculum modules all focus on the '3Rs' – reading, writing, and arithmetic. Training takes place for a small number of teachers outside of school, and then they run school-based sessions for other teachers. |
| SRP | 1B | The SRP is a 12–16-week programme for children who otherwise would likely not attend pre-school. SRP is based in community buildings and is delivered by community teaching assistants (called SRP facilitators), who are trained in a five-day programme prior to the start of teaching. |
| Infrastructure / Construction | 1C | New EQUIP-T activities were introduced in 2017 as part of the programme extension: these involved the community-led construction of up to 220 satellite schools and 230 finished classrooms (including roofing). These activities are intended to help address the classroom shortages. |
| **Component 2 – SLM** | | |
| SLM | 2A | Training for head teachers, assistant heads, and WEOs on modules relating to education quality standards, and the responsibilities and roles of head teachers, leading EQUIP-T school-level initiatives (like SRP, PTPs, School Information System (SIS) introduction), and school development planning, amongst others. |
| SIS | 2B and 5[4] | A management tool used for education planning, monitoring, and decision making, based on data collected at school level. Under EQUIP-T, schools were given tablets to collect the data for SIS. |
| **Component 3 – District planning and management** | | |
| WEO grants and motorbikes | 3A | WEOs were given motorbikes and grants to cover the maintenance and fuel costs of official work (school visits and travel to the LGA office). |
| LGA monitoring grants | 3A | LGAs were given grants to conduct their own monitoring of schools. |
| District and regional capacity building | 3A and 3B | Formal capacity building sessions were provided, as well as on-the-job mentoring, for regional and district officers in education planning and budgeting, as well as in the use of EQUIP-T LGA grants. |
| **Component 4 – Community participation and accountability** | | |
| PTPs | 4A and 4B | Class-based groups of parents and teachers were established to bring parents closer to the classroom. PTPs are intended to consist of one father and one mother from each of the seven grades (known as standards), and seven teachers. The focus is on classrooms, with parents actively supporting classroom activities and helping to address problems such as pupil absence and dropout, and teacher absence. PTPs are also meant to come up with their own priorities based on specific class needs.<br>Two PTP grants were provided, the first for general school development, the second for girls' education activities. |
| IGAs | 4A | An activity to generate income or resources in-kind for the school in addition to the funds it receives from standard sources, such as capitation grants. For instance, a school may set up an agricultural business to plant, harvest, |

[4] The payment for SIS tablets came under Component 5 when initially this activity was part of support to the education management information system (EMIS).

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| | | |
|---|---|---|
| | | and sell vegetables, to generate additional income for the school. In seven EQUIP-T regions, schools submitted business plans and applications and half of all schools received a grant as seed funding to start IGAs. |
| School committees; noticeboards | 4A | Training was provided for school committees, in a cascade model via the head teacher, on their roles and responsibilities. The school committee is a formal school governance body that has a leadership role in school management. It consists of community members and school staff, including teachers.<br>Schools were provided with noticeboards to improve communication between schools and communities, and to increase the transparency of school finances and performance. |
| JUU clubs (*Jiamini Uwezo Unao* – 'Be confident, you can'), *Shujaaz* magazine | 4B | JUU clubs are non-academic and non-extracurricular school clubs for pupils in upper standards intended to provide a platform for children, especially girls, to receive guidance on managing the barriers to education, to discuss their opinions, and to act as change-makers in their school and communities.<br>*Shujaaz* magazine is a colourful comic book-style publication that focuses on a young girl and the challenges she faces to attain education. |
| **Component 5 – Learning and dissemination** | | |
| M&E, learning, dissemination | 5 | Component 5 included M&E activities such as the annual monitoring surveys conducted every year since 2014. In 2018, following a request from PO-RALG, government officers were trained and supported to run the survey. WEOs collected the data using smartphones and/or SIS tablets. This has largely been referred to as the 'Kobo' survey, after the Kobo software platform. Component 5 also included programme communications and the sharing of success stories. |

## 1.3 Aims of the cost study

The main aim of the endline cost study is to provide evidence on the fiscal affordability of scaling-up EQUIP-T to other regions, contributing to one of the four high-level objectives of the impact evaluation. In order to make this analysis as useful as possible, it takes into consideration decisions that the government has already made on the elements of EQUIP-T that it is interested in scaling, and also information from the EQUIP-T MA on standard modalities for these elements. These modalities take into consideration lessons learned from programme implementation, and also the need to make these as low cost as possible for absorption into government budgets for education.

As well as considering EQUIP-T scale-up to other regions, the study also assesses the costs of replicating the priority elements of EQUIP-T in the existing programme regions, i.e. the costs of sustaining the programme after resources and support from EQUIP-T ends (see Box 1 for definitions).

### Box 1. Definition of terms used in the cost study

**Replication**: continuing priority elements of EQUIP-T in the existing regions, using government funding and management systems

**Scale-up**: rolling out elements of EQUIP-T into non-programme regions, using government funding and management systems

The objectives described above are forwards-facing in that they seek to understand future costs and affordability. Hence the first high-level evaluation question that this study will aim to answer is: **Is replicating and/or scaling-up elements of EQUIP-T affordable for the Government of Tanzania?**

The second high-level evaluation question is backwards-facing: **How efficiently has EQUIP-T been implemented, considering its intended outputs? What lessons can be learned?** This part of the study analyses various aspects of efficiency in programme implementation. It examines the cost of the EQUIP-T programme over the implementation period and its main cost drivers; planning and budget execution; and how cost-efficient it has been in delivering certain outputs.

The endline cost study follows on from the midline cost study, in particular by updating some of the analysis carried out around the cost drivers and efficiency in budget execution. However, this study goes further in that it assesses the affordability of replication and scale-up costs for elements of EQUIP-T.

As part of the scoping for this cost study, the evaluation team assessed the feasibility of conducting a cost-effectiveness analysis, which would compare the impact of the programme on pupil learning, as estimated by the quantitative evaluation, with the associated incremental cost. This analysis was judged not to be feasible, and more information on this is given in Annex A.4.

It is noted that this study is not a value for money assessment. Such assessments are more holistic and assess performance against standards under the criteria of economy, efficiency, effectiveness, cost-effectiveness, and equity. This study addresses some similar issues – the drivers of costs, efficiency as measured by the unit costs of outputs – but does not address economy. The findings in the qualitative and quantitative studies are relevant to the criteria of effectiveness and equity. The study objectives around assessing affordability are not related to value for money, but to sustainability.

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# 2 Objectives and methodology

## 2.1 Research questions

The study seeks to contribute to two high-level evaluation questions, and in doing so investigates five more detailed research questions, as set out below.

**Evaluation question 1: How efficiently has EQUIP-T been implemented, considering its intended outputs? What lessons can be learned?**

1. What has the programme cost to deliver, and what have been the main cost elements?
2. Has programme budget planning and execution been efficient? How high are annual budget execution rates? What categories/activities are over-spent and which are under-spent?
3. How cost-efficient has the programme been in delivering (selected) outputs?

**Evaluation question 2: Is replicating and/or scaling-up elements of EQUIP-T affordable for the Government of Tanzania?**

1. How much would it cost on an annual basis to:
    a. replicate elements of the programme in its current regions (using government funding and management systems)?
    b. scale up elements of the programme to additional regions (using government funding and management systems)?
2. How affordable would it be for government to replicate or to scale up the programme?

Although Evaluation question 2 relates to the primary objective of this study, the report addresses Evaluation question 1 first because this gives an overview of the programme and how efficiently it has been implemented, which helps in later understanding the activities being addressed in the costs of replication and scaling.

## 2.2 Methodology: EQUIP-T spending data

### Analytical approach

The backwards-looking cost analysis seeks to answer Evaluation question 1 through simple data analysis techniques: presenting spending and budgets by categories, budget execution rates (expenditure against the planned budget), and spending over time. Unit costs are estimated for cost-efficiency analysis, and the methodology for this is explained in the relevant section (3.4).

### Sources of data

EQUIP-T spending falls into two broad categories: spending on PSAs, and spending on TA. The TA expenditure relates to the running costs of the MA, including the development of materials, as well as ongoing direction and monitoring. This study has access only to data on PSA spending. The backwards-looking expenditure analysis relied on three datasets provided by the EQUIP-T MA:

- spending and budgets of the MA on PSA;
- spending and budgets by LGAs on PSA; and
- M&E data on the numbers of beneficiaries.

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These datasets were provided in Excel, and the analysis process involved some data cleaning and then analysis of the trends and patterns. Emails and phone calls with the EQUIP-T MA finance office, fund officers, and component staff helped to clarify the data, and this built on various rounds of in-person interviews for the midline study and scoping phase of the endline. **In total, six iterations of the LGA data were provided to the evaluation team**, each one responding to queries made by the evaluation team where figures appeared erroneous (such as extreme over- or under-spends, and differences from amounts in previous annual reports).

The MA PSA data is categorised against output codes which can be grouped under components and sub-components. The LGA PSA data is budgeted by the MA using these same output codes, but expenditure by LGAs is reported against 13 Epicor[5] codes – codes in the government's chart of accounts. This terminology is used throughout the report and is summarised in Table 2.

**Table 2. Terminology in budget and expenditure categorisation**

| Terminology | What it means | Example | Use – MA PSA | Use – LGA PSA |
|---|---|---|---|---|
| Component | five components | 1 Improving the Performance of Teachers | Budgeting & expenditure | Budgeting |
| Sub-component | 10 sub-components, categorised under the five components | 1A Improving Teacher Performance | Budgeting & expenditure | Budgeting |
| Output (and output code) | a level of detail under sub-components | 1.A.1 Early Grade Literacy INSET | Budgeting & expenditure | Budgeting |
| Activity | a specific intervention or activity, such as delivering a training session; this might be detailed below the output level, or the output might be equivalent to an activity | Literacy reflection and Communities of Learning introduction (incl. videos). Under which: development of materials; printing and distribution; national training; regional training; district training; etc. | Budgeting | Budgeting |
| Epicor code | 13 codes introduced for the LGA PSA spending in the government's Epicor chart of accounts | C04C01 3Rs (KKK) INSET | Not applicable | Budgeting & expenditure* |

* See Annex A.2 for more detail.

Annex A contains more information on the coding structures used in both the MA and LGA datasets, and the assumptions made in aggregating these against components and sub-components.

### Time horizon

The data represents spending from the start of the programme up to and including June 2019. For MA spending, this is February 2014 to June 2019. For LGA spending, this is January 2016 to June 2019.

### Geographical scope

Spending under the entirety of EQUIP-T is included in the analysis. This includes spending which was targeted at the programme regions (initially five, later seven, and eventually nine regions), as well as

[5] Epicor is the Government's integrated financial management information system at sub-national level.

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spending which took place at national level. The national level spending may have contributed to delivery in the (up to) nine regions, but also included work with national education stakeholders for institutional strengthening and sustainability which would have national impact, such as supporting policy and material development.

### Limitations

The backwards-looking analysis faced a number of challenges and some limitations, briefly summarised here:

- Approximately 21% of EQUIP-T's budget (of the £80.2 million) falls under TA by the MA, and its exclusion from detailed analysis means that a substantial part of EQUIP-T's costs is not well understood. It is excluded for commercial sensitivity reasons. Given that the TA goes in large part on the development and roll-out of activities, this expenditure makes an important contribution to the cost of the programme.
- The budget datasets and expenditure datasets are not recorded at the same level of geographic disaggregation or at the same activity categorisation (as per Table 2). This is documented in more detail in Annex A.2.
- The spending datasets (MA PSA and LGA spending) are aggregated in a way which makes detailed analysis of unit costs difficult. For example, spending codes combine activities in such a way that spending on those activities cannot be separated (such as at the LGA level, where the code for 'INSET general' was used for both some teacher INSET and the SRP). Another example is that there is no way to separate one-off and fixed development costs from roll-out costs, and that MA spending is not broken down by region. Given the staggered entry of regions into the programme, this affects how total costs would be spread across numbers of units.
- The substantial number of errors found in earlier versions of the LGA spending dataset, and the need for six iterations to the data in response to queries, suggests that this dataset could still include errors. In particular, the data does not give the same totals as reported in previous annual reports (e.g. all spending up to Quarter 18 in the 2018 annual review is different to that in the final dataset); this is just one indicator that the dataset is not fully reliable. This, and the two previous limitations, likely contribute to the conclusion in a recent FRA that financial reporting 'needs to be much improved', that there should be 'more detailed and frequent financial reporting to DFID for decentralised funds for the remainder of the programme, including reporting by (a) activity and (b) economic classification, and including some KPIs' and that 'EQUIP-T Managing Agent should clarify arrangements for review and quality assurance of Quarterly Financial Reports before they are submitted to DFID' (KPMG, 2009, pp. 16 and 157).
- The monitoring dataset has several limitations. These include missing information (not all activities updated, particularly for more recent activities and those that are taking place in the two new regions). The dataset has not defined or tracked the number of direct pupil beneficiaries, but only reports total primary school enrolment for the current year. There is no tracking or recording of enrolment from previous years, or attempt to recognise the cumulative total. Similarly, there is no isolation of subgroups of pupils who were more direct beneficiaries. The same applies to beneficiaries of training, such as teachers and head teachers. Where the numbers who attended a training are reported, the overlap between training sessions or the cumulative total is not recorded.

In response to these limitations, this study estimates the costs of scaling-up and replicating the programme using a bottom-up approach, rather than relying on expenditure data, as discussed in the next section.

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## 2.3 Methodology: Scaling-up

The government, led by PO-RALG, has signalled its intention to replicate and scale up six of EQUIP-T's elements.[6] These are: (i) school-based professional development for teachers; (ii) PTPs; (iii) SRP; (iv) SIS; (v) IGAs; and (vi) M&E. This commitment from the government is a positive signal of the level of ownership and buy-in for the EQUIP-T programme, and of its potential sustainability. Of course, continuing these six elements will be financially difficult, but this study looks at opportunities to support the government with this objective.

At the planning stage of this study, OPM decided, with support from the impact evaluation Reference Group, to focus on estimating replication and scale-up costs for three of these elements: (i) school-based professional development for teachers; (ii) PTPs; and (v) IGAs. Three elements were chosen in accordance with the level of resources available for the study, and because they were also to be the focus of the endline qualitative study due to government and DFID interest, and the costs will mainly be incurred at school and district level.[7] School-based professional development is also known as the INSET model for teachers, and was delivered under component 1A. An introduction to these activities is included in Table 1, and more information is given in Chapter 4.

### Analytical approach

The method used for this analysis is based on the 'ingredients approach' (Levin and McEwen, 2001). This is intended to be a straightforward, bottom-up costing approach. It requires listing all the ingredients required for the intervention. This includes the quantity of personnel, the facilities, the materials, other inputs, and the beneficiary inputs. Then a market value is applied to each of these inputs. In this case, the market value used is the value to the government, so it is based on the allowances used by government, and on the rates that governments will pay for goods and services.

### Sources of data

The data for building up these costs came from the following sources:

- EQUIP-T programme documents – explaining how the interventions have been rolled out.
- Interviews with EQUIP-T MA staff – this included notes from previous interviews held at various rounds of the impact evaluation, as well as dedicated interviews and follow up emails with technical and regional leads about the details of how the activities have been rolled out in the past, and how they might be rolled out under government management in future. In addition, EQUIP-T's procurement team provided details on the unit costs of purchases including training materials, distribution and lecturer fees.
- Interviews with government officials – this took place at multiple levels in order to seek both experience of what happened in the past as well as what might happen if government manages the activities in future. Interviews included questions around the numbers of participants and days at training events, allowances and transport costs, venue costs, the materials needed for training, and time spent preparing/organising activities. Interviews were held with PO-RALG, MoEST, Tanzania Institute of Education (TIE) (by email), Dodoma Regional Education Office, two district education offices (one urban and one rural) and four schools – two in each of those districts. The districts were selected because they are EQUIP-T programme regions, ease of travel, and because they represent both urban and rural experiences.

[6] This commitment was set out in a letter from PO RALG to the EQUIP-T national co-ordinator in January 2019.

[7] In addition, the evaluation scope did not include the SRP, aside from some very basic information.

It was originally intended that the study would use 'starter packs'[8] developed by EQUIP-T with the government; however, these were not available. It should also be noted that the unit costs calculated from EQUIP-T spending data are not used in the scaling-up analysis, for the following reasons:

- they represent average rather than incremental costs;
- they reflect inconsistent implementation, such as not all schools receiving the same level of inputs due to the different durations supported by the programme; and
- there are limitations in the data, such as coding at a level too aggregated to be useful for this activity.

### The implementation models

There are various specifications to how these activities could be implemented, ranging from very intensive (with grants, frequent refresher training, and replacement of materials) down to very light-touch (simply a letter sent by PO-RALG to LGAs with some instructions). In the letter from PO-RALG to EQUIP-T in January 2019, PO-RALG included an initial concept note and a proposal for scale-up and sustainability. This included more light-touch models of implementation than were put in place by EQUIP-T. Similarly, interviews with officials in PO-RALG suggest that scale-up would involve a minimalised version of the activities. Whilst these versions may represent a possible route for government implementation, they may miss fundamental parts of the activities from the EQUIP-T experience – such as the inclusion of grants for PTP and IGA. Such a light-touch model would not fully replicate or scale up the activities implemented by EQUIP-T (and as evaluated in the other studies forming this impact evaluation).

The models of roll-out used here reflect what continuation of the activities close to the EQUIP-T model would cost with government funding. Each activity provides both a 'maximum' and 'minimum' implementation scenario. The maximum scenario is closer to what EQUIP-T implemented and includes grants, a higher frequency of training, a longer duration for training, and other variations that require more resources, depending on the case. The minimum scenario is closer to what the government may be intending, though this scenario may still include specific training rather than a reliance only on circulars and self-reading materials. In all scenarios, only government primary schools are included.

### Time horizon

The costs are estimated over a five-year period, which reflects that these costs are 'lumpy'. In other words, activities happen more intensively in some years when training is held, materials are distributed, or grants are made, leading to higher costs at these times; in other years, the costs are much lower. The total costs for the five-year period are then averaged to present an average annual cost. Throughout the discussion, 2019–20 is used as the base year for costs.

### Costs included

With the primary audience being the Government of Tanzania (and other potential funders), it was decided not to include the costs incurred by beneficiaries outside of the public sector. This would include the opportunity cost of the time given by parents and community members (to participate in PTPs or IGAs), or in-kind resources corresponding to these activities.

[8] These would be packs containing a standard set of activities, implementation models, and costs designed to guide new regions in the adoption of selected EQUIP-T activities.

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Within the costs to the government, there are costs which would appear on an activity/programme budget, such as allowances or the purchase of training materials, and there are costs which might expect to be absorbed elsewhere. In particular, the salary costs associated with the time public officials spend on these activities (organising, attending, preparing, etc.) is a cost to the government: it is either an opportunity cost, given that these staff could have spent the time on something else, or it is a real cost if the government needs to hire more staff to carry out duties that would otherwise have been displaced. If staff would otherwise have been underutilised, and can give the time to these EQUIP-T activities without neglecting their other duties, then this opportunity cost will be over-estimated here, and rather represents a case for making more productive use of staff time.

Costs are provided in constant 2019 prices[9] and are shown in TZS, as this is the currency used for budgeting and paying, therefore allowing for comparison with other government spending.

### Geographical scope

The costs are estimated for these activities to be replicated and scaled-up nationally. In other words, every region in mainland Tanzania would be implementing these activities. Replication is applied to the regions which already have received the activities. For INSET,[10] the activities are being replicated in nine 'existing' regions and scaled-up in 17 'new' regions. For PTPs, all nine EQUIP-T regions have received PTP roll-out; however, PTPs have also been rolled out by the USAID-supported Tusome Pamoja programme in four regions. Thus, for PTPs, the activities are being replicated in 13 'existing' regions and scaled-up in 13 'new' regions. For IGA, only seven EQUIP-T regions have received IGA training and grants, so these seven would continue to have the IGA model replicated; the other 19 regions would receive scale-up. Figure 2 shows how the 26 regions of Tanzania are classified for the analysis.

**Figure 2. Classification of regions for replication and scale-up analysis**

| | | EQUIP-T | | Tusome Pamoja | Neither |
|---|---|---|---|---|---|
| Number of regions (total 26) | | 7 original | 2 extension | 4 | 13 |
| Intervention | INSET | Existing (9) | | New (17) | |
| | PTP | Existing (13) | | | New (13) |
| | IGA | Existing (7) | | New (19) | |

### Underlying numbers of beneficiaries

In order to estimate these costs nationally, the government's 2019 school census data (part of the national education management information system: EMIS) was used to provide the underlying numbers of units. Costs take place either based on numbers of teachers, schools, wards, districts (also known as LGAs), or regions, and these numbers are included in EMIS. Only public sector teachers and schools are included.[11] The numbers of regions and LGAs are assumed to remain constant over the five-year period. The number of wards and schools are assumed to grow at 1.8%

[9] This means inflation is not included, so costs do not rise with inflation. Inflation would mean that costs increase but it does not represent a real increase in the resource value of inputs. In the model used here, all unit costs/rates remain constant.

[10] The Tusome Pamoja programme has also included in-service training, closely linked with EQUIP-T. However, email correspondence with the Tusome Pamoja Chief of Party confirmed that only three of the EQUIP-T numeracy modules – out of a total of 28 modules – had been rolled out. For this reason, it is assumed that the Tusome Pamoja regions have not already received this in-service training package.

[11] According to 2019 school census data, 91% of primary schools are public, 89% of teachers and 96% of primary enrolment are in public schools. This means 9% of schools, 11% of teachers and 4% of primary enrolment, would not be beneficiaries.

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and 0.25% per year, respectively, based on the average growth from 2017 to 2019. The number of teachers is assumed to grow by 3% each year, based on the average annual increase of teachers in public primary schools between 2012 and 2017 across the country (taken from the Education Sector Development Plan cost simulation model).

### Limitations

The scaling-up and replication analysis is subject to the following limitations.

- The cost estimates relate only to expanding EQUIP-T activities to public schools, on the assumption that this is what the government would choose to do, but it obviously means some primary schools, pupils, and teachers are not benefiting from the interventions.
- The cost estimates are as good as the underlying data. Whilst some unit costs are clear-cut – government allowances are fixed; the amount of the grants is assumed to remain the same as under EQUIP-T – others depend on the small sample of respondents met and some further online research. For this reason, all the cost assumptions are presented in Annex A. The model could be edited if the government wanted to vary the cost assumptions.

# 3 EQUIP-T spending

This chapter provides a backwards-looking analysis of what the EQUIP-T programme has cost to deliver. It begins with an overview of programme spending, then focuses on spending across the five components and the relative cost of the different sub-components, looking both at MA- and LGA-level spending. This is followed by a review of the efficiency of programme budget planning and execution, in terms of spending against budgets, and flow of spending over time. Finally, selected unit costs are estimated, allowing for an analysis of the efficiency of spending between regions.

Throughout, the spending is discussed in terms of the components and sub-components. For ease of reading, these are referred to by their component numbers but are given abbreviated titles, see Box 2.

**Box 2. Abbreviations used in cost analysis**

| C1 'Quality' | C2 'SLM' (school leadership and management) | C3 'DPM' (district planning and management) | C4 'Community' | C5 'M&E' |
|---|---|---|---|---|
| • C1A 'Teachers'<br>• C1B 'SRP' (school readiness programme)<br>• C1C 'Construction' | • C2A 'SLM'<br>• C2B 'SIS' (school information system) | | • C4A 'community'<br>• C4B 'girls' | |

## 3.1 What has the programme cost to deliver?

DFID's total programme budget for EQUIP-T was £90.2 million, of which £80.2 million was directed to the components overseen by the MA and therefore relates to the focus of the impact evaluation.[12] The budget for the EQUIP-T programme through the MA was divided into three main budget lines:

- *PSA funds managed by the MA* – originally, all PSA funds were managed by the MA, but since 2015/16, when a large portion of PSA funds were decentralised to LGAs, this has been reserved for activities at regional or national level, the supply of equipment and materials, service contracts, and printing and distribution costs. The total budget was £20.6 million.
- *PSA funds transferred to and managed by LGAs for implementing EQUIP-T activities at region, district, and school levels* – DFID refers to this as 'financial aid'. These funds were transferred from DFID to the Government of Tanzania in seven tranches. The MoFP received the tranches, and then disbursed funds on to regions, LGAs, and schools.[13] The total budget for this was £37.2 million.
- *The TA budget managed by the MA* – covering the running costs of the MA, for activities such as development of programme materials as well as ongoing direction and monitoring. This budget is spent on salaries, office expenses, and travel and living costs. The total budget for TA fees was £16.9 million, and reimbursable expenses was £4.7 million.[14]

[12] This leaves £10 million which was budgeted for an English-training component through the British Council, the education service delivery indicators survey through the World Bank, the printing and delivery of student and teacher books through AECOM, and this impact evaluation through OPM (source: email with DFID, October 2019).

[13] Initially, all these funds were transferred to LGAs, which then distributed funds (e.g. for PTP and IGA grants) to schools. However, the school construction sub-component, introduced in 2017, involved funds being sent to schools directly from MoFP.

[14] There is also under £1 million for other costs – a delivery unit and purchase of some materials. Though not the focus of this study, the reason for separating these budget lines is unclear.

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DFID records the budget only at the level of total financial aid (£37.2 million) and MA services and others (£43 million), which would include the MA PSA, TA, and reimbursable budgets. DFID does not set or record the budgets at a more detailed level, although they do receive detailed budgets from the MA.

Between the start of the programme (February 2014) and June 2019, the programme spent a total of £72.1 million, or 90% of the total budget, as shown in Table 3. This period was a total of 65 months, representing 90% of the programme lifetime (72 months to January 2020). Programme activities were meant to be completed in most regions by June, with some continuation in the two extension regions until November 2019. Of the total spending, £31.6 million, or 44%, was spent by the LGAs (and PO-RALG and regional secretariats) as decentralised budgets, in the period from January 2016 (when decentralised funding started) to June 2019. Combining the LGA spending with MA spending, the total PSA spending was £51.6 million. Throughout this chapter, the spending data represents the same time periods: February 2014 to June 2019 for MA; and January 2016 to June 2019 for LGAs.

**Table 3. Total EQUIP-T spending, by category**

| Category | Budget | | Spending | | Execution |
|---|---|---|---|---|---|
| | GBP | % | GBP | % | % |
| MA – PSA | 20,627,458 | 26% | 19,984,999 | 28% | 97% |
| LGA – PSA* | 37,200,000 | 46% | 31,590,232 | 44% | 85% |
| MA – TA fees | 16,924,251 | 21% | 16,120,947 | 22% | 95% |
| MA – TA expenses | 4,675,603 | 6% | 4,377,512 | 6% | 94% |
| MA – other | 673,146 | 1% | dm | dm | dm |
| **Total** | **80,100,458** | **100%** | **72,073,691** | **100%** | **90%** |

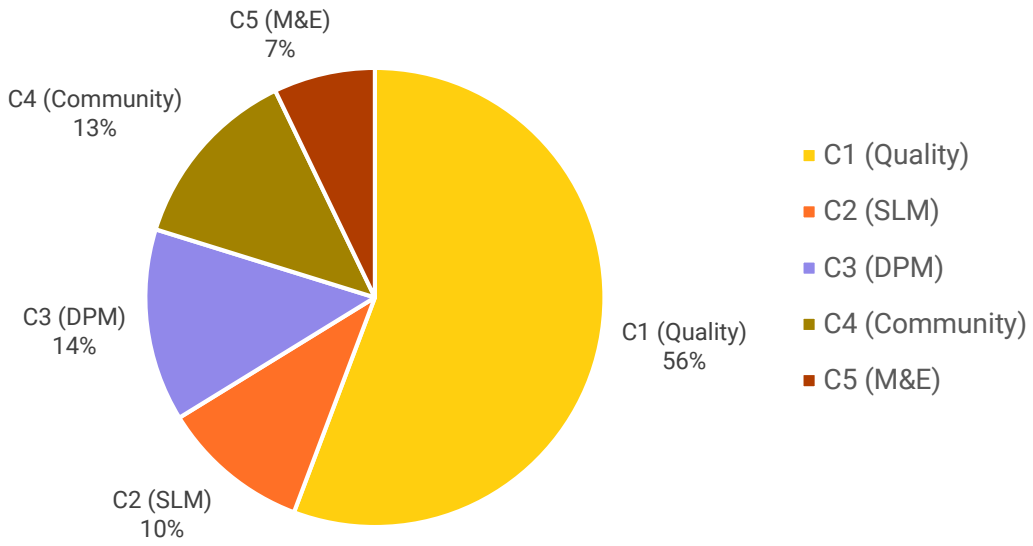
Source: EQUIP-T data and email correspondence. Includes spending from February 2014 to June 2019 inclusive, plus £7,349 MA PSA spent in inception. 'dm' indicates data missing; given the small size of the budget, this was not followed up. *LGA PSA includes spending by PO-RALG and regional administrative secretariats.

A further breakdown of the TA budget and spending is not available, so the rest of this chapter focuses on PSA spending. The absence of more detailed information about TA expenditure is a limitation – this spending was obviously essential in contributing to the development and implementation of the EQUIP-T activities. The spending presumably includes design and delivery work across all five components, as well as monitoring of all components (monitoring would fall under component 5). Therefore, the rest of the analysis, whilst focusing on PSA, can be considered a partial analysis of the resources used to deliver the components.

## 3.2 What are the main cost elements?

Of the PSA expenditure, component 1, improving access to quality education, is by far the largest, making up 56% of expenditure (£28.7 million), as shown in Figure 3. Component 1 included many of the most well-known activities of EQUIP-T: the development and roll-out of INSET for early grade teachers; the provision of teaching and learning materials; the establishment of school readiness centres; the setting up of satellite schools; and construction. Components 3 and 4 (DPM and community) are both the next largest, having cost 14% (£7.0 million) and 13% (£6.7 million), respectively, of the total PSA spend.

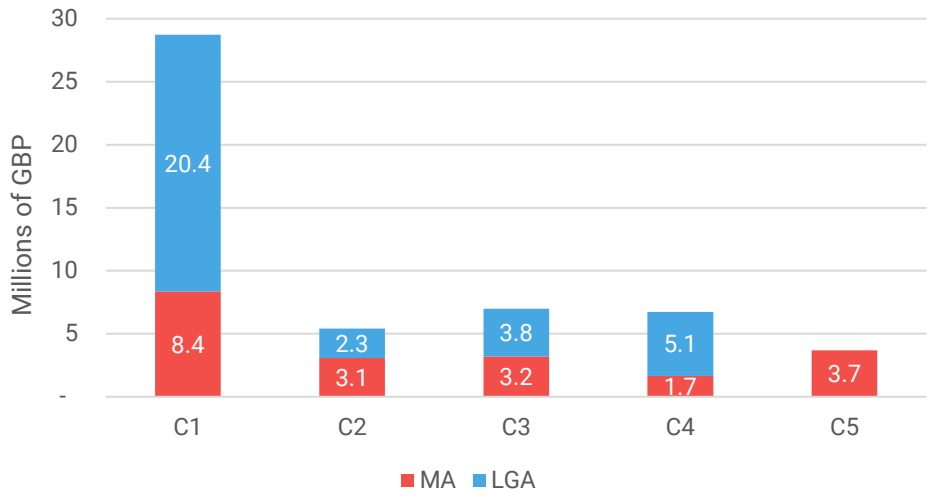
### Figure 3. Total PSA expenditure, by component




Source: EQUIP-T data. Includes spending from February 2014 to June 2019 inclusive.

Figure 4 shows the breakdown of PSA spending across the five components and by the two spending entities, MA and LGA; 61% of all PSA spending (£31.6 million) took place at the LGA level. Spending was substantially higher at the LGA level than MA level for components 1 (quality) and 4 (community). For component 1, this reflects the delivery of teacher INSET at local level, with the cascade model involving residential training for a small number of teachers per school, and then quarterly ward-cluster reflection training, with costs executed through LGA budgets. Component 4 (community) included three waves of grants distributed through LGAs to schools: the PTP grants 1 and 2, and the IGA grant. In contrast, component 5 (M&E) spending took place entirely at the MA level, with the MA having responsibility for programme M&E, learning, and dissemination.[15]

### Figure 4. Total PSA expenditure, by spending entity and component




Source: EQUIP-T data. Includes spending from February 2014 to June 2019 inclusive.

[15] A small amount of component 5 spending may have taken place at LGA level on 'stories of change' and learning. This spending is grouped with LGA grants for monitoring so has been categorised as component 3. See Annex A, Annex Table 2.

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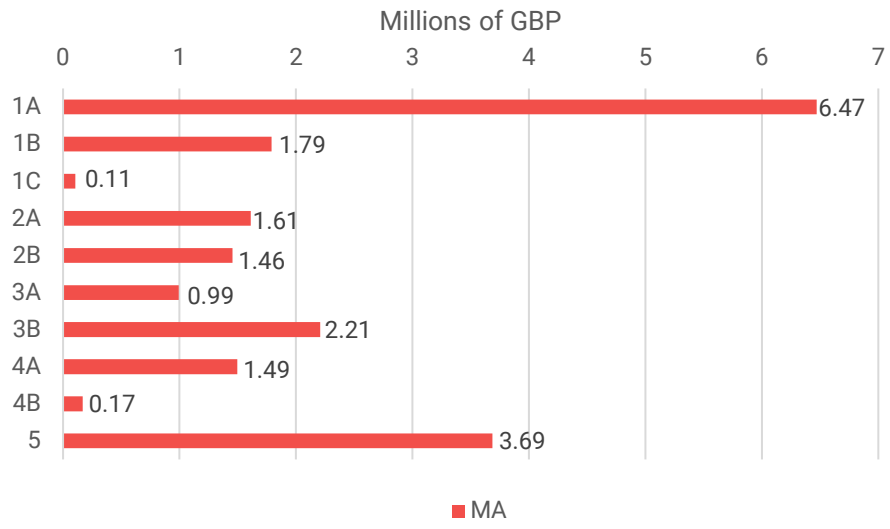
### 3.2.1 MA expenditure

Within PSA expenditure by the MA, sub-component 1A (teachers) is by far the largest, as can be seen in Figure 5. Spending on 1A came to £6.47 million up to June 2019, which was 32% of all spending by the MA. Sub-component 1A focuses on improving the quality of teaching and learning in the classroom, and as the largest spending sub-component, this is the most prominent aspect of EQUIP-T's activities. A further breakdown of spending under 1A is discussed below and given in Figure 6. Component 5 (M&E) received the next largest share of spending, at £3.69 million. This component included the purchase of tablets for the SIS, annual monitoring surveys, including the WEO-administered survey in 2018 (see Table 1), and programme communications.

The two lowest spending sub-components were 1C (construction) and 4B (girls). Construction was provided under 1C; however, this was budgeted and spent (over £6 million) through LGAs, so relatively little occurred at MA level. Sub-component 4B (girls) has seen relatively less implementation at MA level; some of this – such as the second PTP grant[16] – also took place through LGA spending.

**Figure 5. MA expenditure by sub-component**

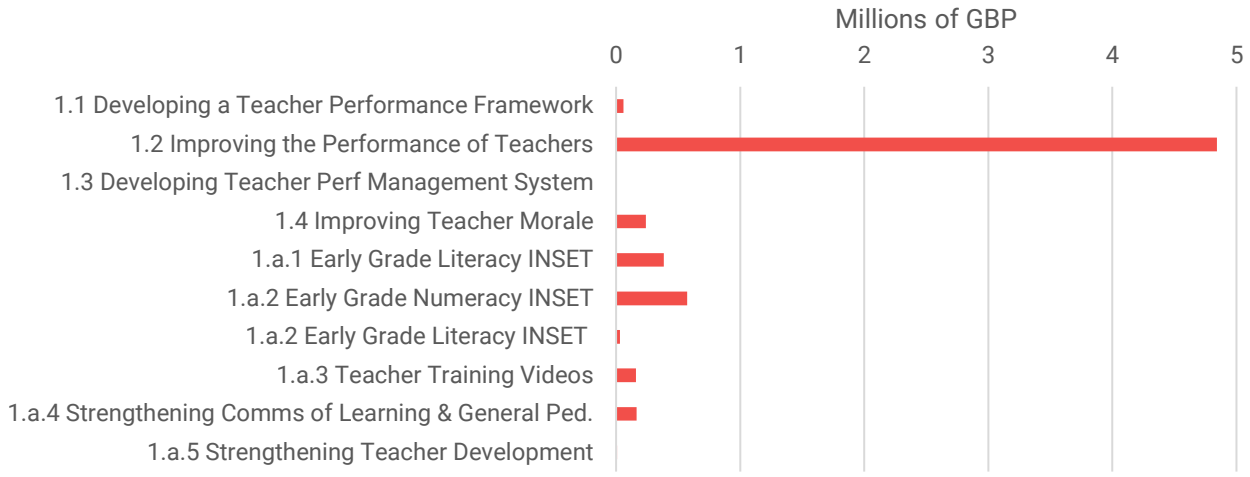



Source: EQUIP-T data. Includes spending from February 2014 to June 2019 inclusive.

Figure 6 shows the breakdown of spending on 1A – improving the performance of teachers. The spending output codes do not allow for a detailed understanding of the spending, but it can be seen that most of this spending went on output 1.2, which was a code used before the programme extension and the revision of codes in 2017. In the midline costing study (Chapter 7 in OPM, 2017), spending on code 1.2 up to June 2016 was further analysed. The analysis showed that 28% went on developing the INSET modules, as well as on printing the training modules and teaching and learning materials (such as supplementary readers and 'big books' – large story books), 24% on introducing and implementing the INSET, and 37% on commissioning universities and teacher training colleges (which is part of implementing the INSET). However, the midline study also showed that coding of spending was not always consistent, so analysis below the general sub-component level is not reliable.

[16] The second PTP grant, distributed in 2017 to the original seven regions, was meant to be used to improve the attendance, retention, learning, and welfare of girls. However, the EQUIP-T MA clarified that children with disabilities and other marginalised children could also benefit from the grant. This grant falls under sub-component 4B.

**Figure 6. MA expenditure on sub-component 1A (teachers) by output code**




Source: EQUIP-T data. Includes spending from February 2014 to June 2019 inclusive.

### 3.2.2 LGA expenditure

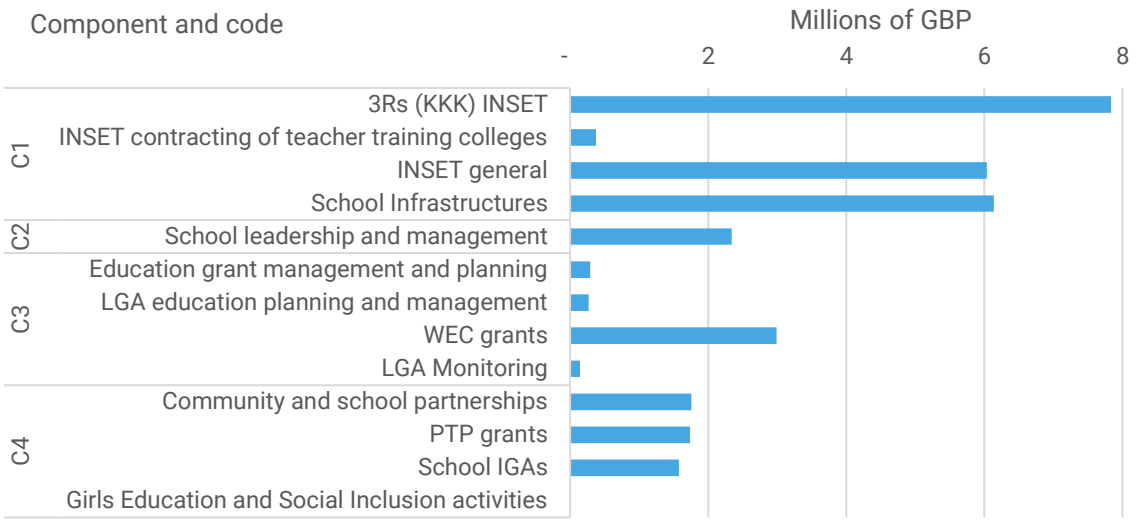
Through LGA EQUIP-T budgets, LGAs spend against 13 codes in the government's Epicor system, and spending against these is shown in Figure 7. Up to June 2019, the Epicor code with the highest spending was 3Rs INSET, followed by school infrastructure, and then INSET general. 3Rs INSET and INSET general relate to the continuous professional development model for teachers, which included the roll-out of early grade literacy and numeracy modules, and gender-responsive pedagogy.[17] At LGA level, this spending included allowances, transport, and any venue costs for residential training at the district level, as well as ward-cluster reflection training sessions.[18] At both these types of training, sessions were facilitated by tutors from the teacher training colleges; these tutors were paid an institutional fee, which comes under the code 'INSET contracting of teacher training colleges'. Thus, the first three codes in Figure 7 below, totalling over £14 million, relate almost entirely to the teacher INSET model under sub-component 1A. The exception to this is that the SRP roll-out at LGA level (such as training SRP facilitators) was allocated under the code 'INSET general' (along with gender-responsive pedagogy). The Epicor codes do not allow separation of the SRP spending and thus represents a limitation of the coding structure for tracking EQUIP-T programme expenditure by sub-component. This specific case means that it is not possible to report the total amount spent on SRP[19]– whilst this activity has its own code at MA level, it is grouped with INSET at LGA level.

[17] A final module on general effective pedagogy had not been rolled out yet.

[18] The materials – modules and manuals – were paid for by the MA.

[19] This is not possible with this data set. It may be possible with the underlying raw data collected by fund officers.

**Figure 7. LGA expenditure by component and Epicor code**




Source: EQUIP-T data. Includes spending from January 2016 to June 2019 inclusive.

As discussed in relation to Figure 5, whilst MA expenditure on construction is very low, at the LGA level over £6 million has been spent on construction, because the school building activities have taken place through LGA budgets.

At June 2019, no spending had taken place under the Epicor code for girls' education and social inclusion activities. This falls under sub-component 4B, but does not mean no activity took place under this sub-component, as other codes included activities which relate to gender and inclusion. For example, the second PTP grant (included under 'PTP grants' in Figure 7) was used for girls' education and inclusion activities. The EQUIP-T MA explains that after establishing the girls' education Epicor code, in the end none of the girls' education activities at LGA level were budgeted under this code; instead, they fell under other codes.

## 3.3 Has programme budget planning and execution been efficient?

This section seeks to assess whether budget planning and execution have been efficient. This is one aspect of the concept of operational efficiency in public financial management; it looks at whether the programme spent its funds as intended, whether spending was in line with budgets, where there were over- or under-spends, and the reasons for these.[20] Note that for adaptive programmes such as EQUIP-T, which are intended to be responsive to context, the reasons for low budget execution rates or for large within-year budget revisions may well be valid, but these need to be well documented so that they can be assessed. Another part of efficiency in execution is to look at the cost-efficiency of delivering specific outputs, which is the focus of section 3.4.

An overarching and surprising finding is that a comprehensive budget for EQUIP-T broken down by meaningful category and time period is not readily available, making it difficult to assess the budget planning process and execution. A review of the available MA and LGA budget data is given in Annex

[20] A complete assessment of operational efficiency would also look at the procedures of budget execution and reporting, such as financial management control and oversight mechanisms, and financial accountability mechanisms (such as audits). Whilst some of these are touched on tangentially, these issues were not the focus of this study. A different type of efficiency is allocative efficiency, which assesses how funds were targeted towards the competing objectives and priorities; again, this is not the focus of this study, nor possible with the available programme data.

A.2. Over the course of implementation, the process for preparing budgets changed. For the first three years of the programme, the MA had annual PSA budgets, and for the first year of decentralised funding, LGAs had an annual budget, which was followed by tranche-based budgeting.[21] However, from the 2017 programme extension onwards, although there was a detailed budget for the whole extension period (2017–2020) by activity, there were no agreed budgets set for a medium term[22] (e.g. annual or tranche) period at the level of the 10 sub-components (as in Figure 1) or by LGA and Epicor code. Budgets were not detailed using the same type of categories (codes) as the expenditure data, and were not held as a cumulative running total budget. Furthermore, there is no budget for the entire programme lifetime for PSA funds broken down by component. This is explained further in the following sections.

### 3.3.1 Efficiency of MA spending

The execution of the MA PSA budget cannot be assessed meaningfully for two key reasons, and Annex Table 3 documents the sources for these. First, the level of detail of categorisation in the budgets does not align with the expenditure data. Second, the use of a rolling monthly budget means that there are no firm medium term (such as annual) plans against which to assess implementation. At the start of the programme, MA PSA budgets were set annually, and by component, as reported in the 2014, 2015, and 2016 MA annual reports. For the extension period, the MA prepared a total budget in advance, by sub-component, output, and detailed activity, and whilst it has produced a rolling monthly workplan and forecast as an internal tool, it has not been required to set and report expenditure against medium-term budgets. The forecasts were shared with DFID but were not a requirement. The lack of reported budgets since 2017 is a weakness in the programme's management: it is not possible to transparently track whether the programme was achieving its spending objectives annually and planning efficiently, or why changes in spending decisions were made. Budget execution cannot be meaningfully assessed against a plan which changes monthly. The total lifetime budgets for each component have been adjusted in contract amendments making them quickly obsolete as a marker of efficient planning or execution.

Thus, this study looks at the efficiency of MA spending based on lifetime budget execution rates for whole components, budget execution for the early years of the programme, and flow of spending over time.

With the most recent data, budget execution can be looked at in the aggregate across the five components, for the total at June 2019. Midway through 2019, the programme was intended to be finished in the original seven regions, continuing only in the two extension regions. Thus, we would expect almost all PSA spending to have already taken place by July 2019, and indeed total MA PSA budget execution was 96.9% (£19.98 million spent out of £20.62 million budget).

At this point, as shown in Figure 8, budget execution across the five components ranges from a high of 100% for components 1 and 3, down to 85% for component 4. The low execution on component 4 may be related to work on supporting the roll-out of girls and inclusion activities to LGAs. For LGAs, these activities will be funded by Tranche 7, which was delayed in being disbursed. As a result, the MA would have delayed its own activities to support this roll-out.

[21] Budgets were prepared for each tranche of funds being disbursed from DFID, to the Government of Tanzania, and then disbursed down to LGAs.

[22] *Medium term* is usually used to refer to three- to five-year periods in financial planning; however, here it is used to differentiate between the very short term (monthly) planning and the longer term (three-year extension period) budgets used by EQUIP-T.

**Figure 8. Budget execution of MA PSA spending by component**


Source: EQUIP-T data. Includes spending from February 2014 to June 2019 inclusive.

Using the annual budgets contained in the earlier MA annual reports, it is possible to look at budget execution year on year for 2014 to 2016. At this time, each component had an original budget for the year ahead, and towards the end of the year of implementation, probably when the programme was re-budgeting for the following year, the current year's budget was revised, based on likely actual expenditure. This means the revised budget indicates how far the budgets strayed from original plans towards the end of the year, and the actual spend indicates whether it went further off course in the final months.

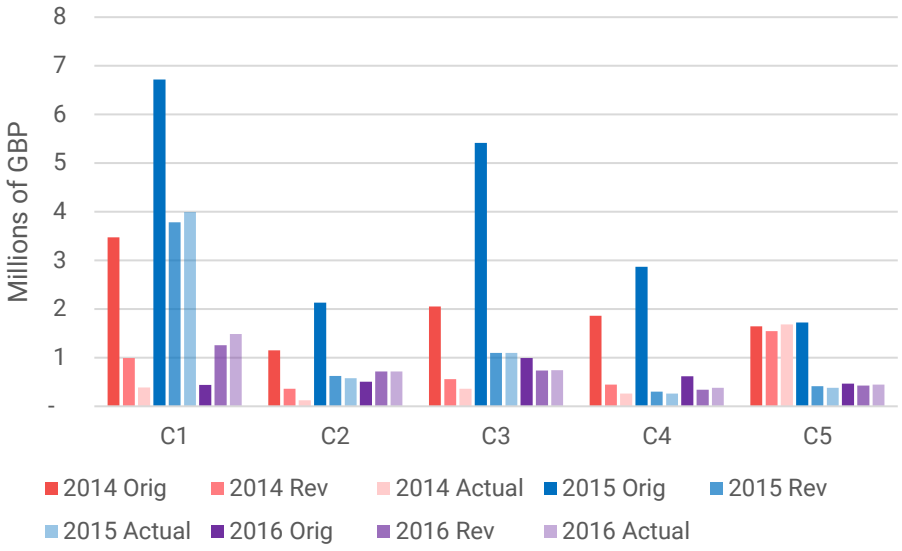
Figure 9 shows how the programme budget execution performed in 2014, 2015, and 2016, based on original and revised budgets, and actual expenditure.[23] Broadly, the programme started in 2014 by hugely over-estimating its budgets and failing to execute according to plans, and by 2016 the programme was actually spending more than originally planned in its budget. In 2014, the MA explained in its annual report that MA PSA expenditure was 'slower than expected'; factors in these delays included shifts in the work needed (such as more material development than originally anticipated) and delays in tendering for goods and services (such as motorbikes and tablets) due to the poor value for money of the DFID Procurement Agent, and banking problems experienced by successful bidders. The MA also reports that the slower spending in 2014 was due to an 'over-ambitious expenditure schedule at inception' (EQUIP-T MA, 2014, p. 22). This ambition continued to the end of the year, when actual budget execution against the revised budget was still only 72% for the total programme.

Budget execution in 2015 is more unusual. At some point in this year, the decision was taken to decentralise a large portion of PSA funds to LGAs. As a result, the components started the year with very high original budgets, and the revised budgets are much lower. It is therefore not possible to tell how much the revised budgets reflect a shift to LGAs, or further delays in spending due to capacity or other issues. The revised budget, at least the total of which was agreed as part of September 2015 contract amendment, was more accurately predicted for actual expenditure in 2015.

[23] For this analysis, the original budget for a year is taken from the previous year's annual report, the revised budget is reported in the annual report for that year in November, and actual spend is from the most recent data.

In 2016, the programme experienced over-spending: the budget was revised upwards (for components 1 and 2, and overall) and expenditure met or exceeded the revised budget. At this point, the MA was in discussion with DFID and government about a time and budget extension, and this likely allowed for the programme to spend more in 2016 than initially planned.

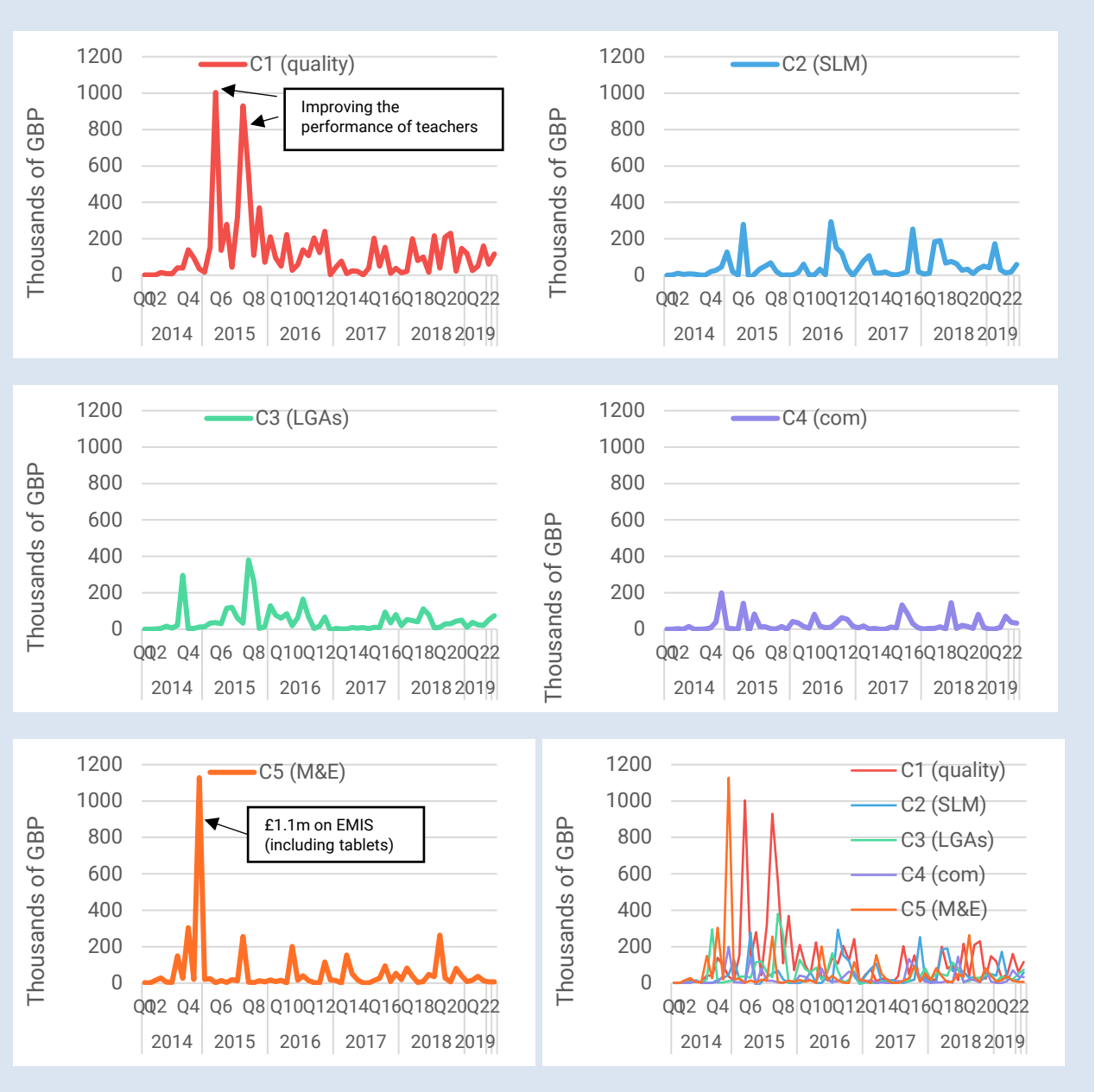
### Figure 9. Budgets and actual expenditure for MA PSA, 2014–2016




Source: EQUIP-T MA 2014, 2015 and 2016, and EQUIP-T data. Orig = original budget at start of year. Rev = revised budget agreed part-way through year. Actual = actual expenditure at end of year. See Annex B.1 for data.

It is also possible to look at the flow of spending over time. Figure 10 shows spending for every month from February 2014 to June 2019, for each of the five components separately on the same scale, and then all five components together on the final panel. There were notable peaks of spending under component 1 (quality) in March and August 2015, and component 5 (M&E) in 2014. As discussed in the midline study, these corresponded to delivering INSET, purchasing teaching and learning materials, and purchasing tablets (for the SIS). From 2016 onwards, spending remained more consistent and lower over each year, as compared with 2014 and 2015. This partly reflects the shift towards decentralisation, in which much of these implementation costs moved to LGA budgets.

**Figure 10. Monthly MA spending by component over time**




Source: EQUIP-T data. Includes spending from February 2014 to June 2019 inclusive.

### 3.3.2 Efficiency of LGA spending

The ability to assess the budget execution of the LGA funds in a comprehensive and meaningful way is limited for three main reasons: the budgets are set using different details and categorisation in terms of the expenditure data; the budgets are consolidated for all regions rather than at the LGA level; and there is no effort to consolidate cumulative tranches for LGAs with any meaningful breakdown against which to assess running total budget execution. The available budget and expenditure data for LGA PSA funds is documented in Annex Table 4.

The decentralised funds, also referred to as 'financial aid', flowed through government systems; however, they did not all appear on the government's budget and did not always have an annual budget. This may be relevant to the finding in a recent FRA that the EQUIP-T financial management had various weaknesses and that 'essentially a parallel system has been in operation' (KPMG, 2019,

p. 113).[24] The LGAs had annual EQUIP-T budgets for the financial year 2015/16, which was the first year of decentralised spending. As the EQUIP-T LGA funds are organised by the specific Epicor codes set up for EQUIP-T, LGAs are able to spend the funds only against these codes, on the activities agreed (either at the start of the year if there is annual budget or within-year under the cash-budgeting approach, as explained below).

After the first financial year of decentralised spending (2015/16), in 2016/17 and 2017/18, the programme adapted its approach and started using cash-budgeting. This is explained by the MA as preparing budgets in line with a tranche (once or twice per year), rather than the financial year, and quarterly 'mini-budgets' were prepared for LGAs based on activities for the following quarter. The MA explained that this choice was made because LGAs were left with excess funds (not planned for) in their accounts due to incomplete spending, an exchange rate gain in 2016 (approximately TZS 4 billion, over £1.2 million), and delays in tranche disbursements. Furthermore, variations in LGAs' capacity to spend, and specific issues such as misuse, called for more tailored budgeting in real time for LGAs. For 2016/17 and 2017/18, the MA prepared the mini-budget (with inputs from LGAs) and passed this information to LGAs to enter into Epicor. The lack of full pre-determined annual budgets meant that the EQUIP-T funds did not appear 'on budget', so were not in the government's Budget Act. However, in 2018/19 LGAs were given annual budgets again.[25]

Underpinning the budgeting, at least from 2017 onwards, is a detailed workplan and budget for the decentralised funds for the extension period. This workplan and budget is based on detailed activity budgeting. It is aggregated for all regions, and thus does not contain a budget by LGA or by region. Furthermore, this budget is by output under sub-components, and is not mapped to Epicor codes; therefore, it is not clear how spending could be reported against this budget. Finally, whilst it was projected by month, it does not provide annual budgets for LGA spending; in reality, budgeting was adjusted according to capacity and tranche delays. This workplan is also only for the extension, rather than a complete budget for the entire duration of EQUIP-T. The tranche budgets were also not disaggregated to LGAs and not mapped to Epicor codes, and there has been no production of a budget which includes cumulative tranches.

The lack of complete or cumulative budgets for LGAs makes it difficult to assess budget execution by LGA, over time, or by code.[26] Furthermore, there are no component level budgets to break down the total LGA budget (of £37.2 million). Whilst LGA-level budgets using Epicor codes must have been developed for each tranche, the MA does not appear to have any accumulated LGA-level budget from which to track expenditure over time or by activity (Epicor code or sub-component/output code). This also limits the extent to which budget/allocation decisions can have been made with the whole picture clear. It is very difficult to see whether the MA has been adequately tracking spending for monitoring and reporting, and difficult for this evaluation to do so for accountability purposes. Indeed, the FRA notes that the MA's financial reporting 'does not disclose activities and economic classification of expenditure for a particular reporting period' and 'needs to be much improved' (KPMG, 2019, pp. 120 and 16). It is therefore not possible to look at execution rates against budget categories or over time for the entire period of implementation. However, it is possible to look at budget execution for 2018/19, as well as the *levels* of spending across different LGAs and over time, which will be the focus of this section.

[24] The full quotation is: 'There have been various weaknesses in the way the financial management of the programme has been integrated with GoT [Government of Tanzania] systems – essentially a parallel system has been in operation and there has been poor use of existing GoT systems, which has undermined the sustainability objective.' KPMG (2019), p. 113.

[25] It is not clear if this was included 'on budget'. The rationale for this change is not clear.

[26] The evaluators have not been provided with a version of the LGA budget broken down by Epicor code or by LGA.

An additional aspect of efficiency in spending relates to the flow of funds over time and how smooth the transfer has been from DFID UK, through various intermediaries, down to LGAs and schools. The efficiency of LGAs in spending over time and as planned depends on whether they receive their disbursement as intended. Table 4 shows the flow of the seven tranches from DFID to the MoFP, taken from a recent FRA for DFID (KPMG, 2019). The process has various steps: MoFP notifies PO-RALG that the funds are received, after which PO-RALG sends a letter to MoFP requesting transfer on to LGAs and the details of allocations. According to the fund officers interviewed for the qualitative study, there have been problems in delays with this process of letters between ministries, leading to delays in disbursement to LGAs.[27] The table below indicates some delays of over one month; however, implementation reports suggest much longer delays. For example, Tranche 6 was expected in July 2018 but still not disbursed until mid-November 2018, and Tranche 7 – received in February 2019, according to the table below – had not reached LGAs by the end of June 2019, by which point the original seven regions were supposed to have finished implementation (EQUIP-T MA, 2018a, 2018b, 2019b). These delays undoubtedly impact on LGAs' ability to execute their budgets efficiently.

**Table 4. Funds disbursed to the Government of Tanzania for EQUIP-T implementation**

| Tranche | Date funds were received from DFID by MoFP | Funds received from DFID by MoFP in GBP | Equivalent amount in TZS | Date instruction were issued by PO-RALG to MoFP to release funds to LGAs and/or schools |
|---|---|---|---|---|
| 1 | 18 November 2015* | 5,800,000 | 18,717,125,680 | 18 November 2015* |
| 2 | 21 January 2016 | 5,800,000 | 17,816,053,141 | Letter not located |
| 3 | 2 September 2016 | 5,800,000 | 16,595,467,500 | 16 November 2016 |
| 4 | 29 December 2016 | 5,800,000 | 15,429,755,660 | 26 January 2016 |
| 5 | 28 November 2017 | 5,000,000 | 14,000,000,000 | 4 December 2017 |
| 5 | 28 November 2017 | T5 exchange gain | 819,473,880 | 27 April 2018 |
| 6 | 3 October 2018[1] | 5,000,000 | 14,738,261,000 | Letter not located |
| 7 | 1 February 2019 | 4,000,000 | 11,716,780,000 | Letter not located |
| **Grand total** | | **37,200,000** | **109,832,916,861** | |

Source: KPMG (2019). Their sources: Notification of Fund Received Letters issued by MoFP to PO-RALG, Instruction letters from PO-RALG to MoFP, and Quarterly Report 19. *Based on dates, most LGAs received funds into their bank accounts. (1) OPM note: The 2018 Annual Report – Key Document 17 – states that Tranche 6 funds were transferred in July 2018.

A final important note about assessing LGA spending efficiency: the LGA spending data provided by the EQUIP-T MA contained a large number of errors, such that six iterations of the dataset were provided in response to queries from the evaluation team. The final dataset has responded to many of these errors, but it is possible that it still includes further errors. For example, the total spending up to Quarter 18 does not match the spending reported in the 2018 Annual Report (though the difference is less than 1%).

### Relative levels of LGA spending

As mentioned, instead of looking at execution against budgets for the entire programme to date, it is possible to look only at spending in absolute terms. Comparing LGA spending between the different

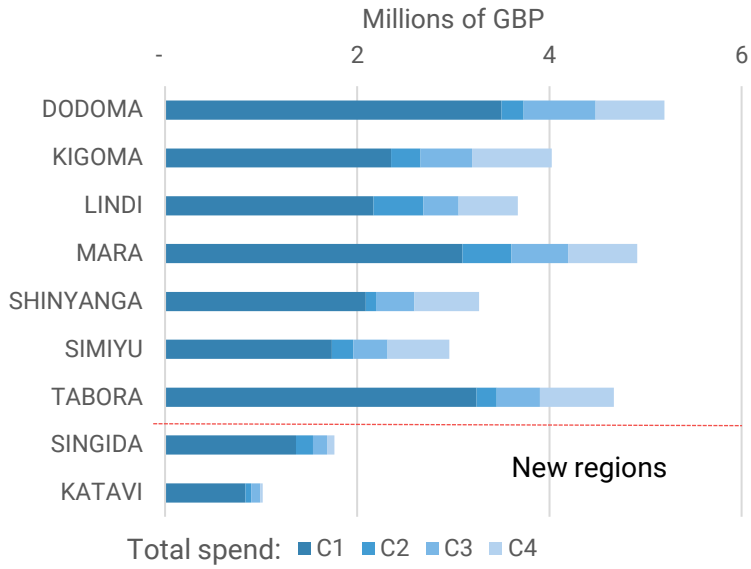
[27] These delays are at the government level and the MA reports that it has worked to try to mitigate these.

regions gives an indication of which regions' LGAs have been more efficient at carrying out spending and which are relatively behind. Regions' absolute spending is also expected to vary in proportion to their relative sizes. Figure 11 shows total spending by LGAs up to June 2019, aggregated to the nine regions (in total, there are 63 LGAs receiving EQUIP-T decentralised funds). The panel on the left-hand side shows total spending per region split by the four components; the right-hand side shows average spending per school to give a sense of relative spending for the regions' size. Both these presentations are, of course, a proxy since volume of spending does not imply quality of spending: it is possible that LGAs which have spent more money did not spend it well as LGAs which spent less.

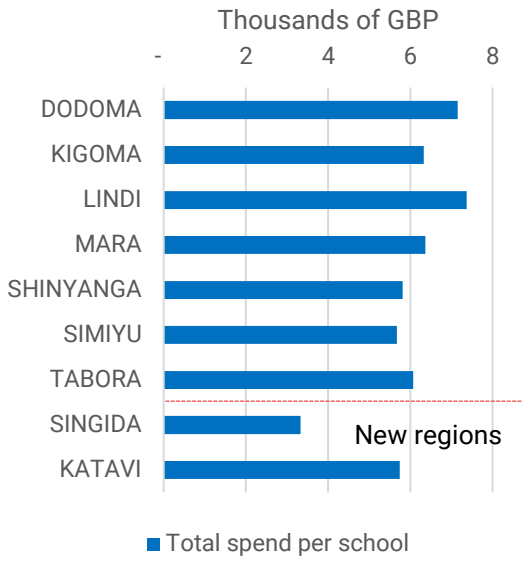
Dodoma region has spent the most in absolute terms, at £5.2 million, and in relative terms is one of the highest spending regions, at over £7,000 per school. The next highest spender in absolute terms is Mara, with a total spend of £4.9 million, then Tabora, at £4.7 million. However, the highest spending in terms of average spend per public school is Lindi, at close to £7,400. All activities are built up using standardised unit costs and budget formulae, so a variation in costs by region should reflect either higher units (more LGAs, more schools, more wards) or a different implementation model. Dodoma's higher expenditure may in part be explained by its having more wards but also by its implementation model. The first seven regions in the programme all received decentralised funds for the same period, whereas Singida and Katavi joined the programme much later – which explains why these two regions have the lowest absolute expenditure. However, Katavi has caught up with the other regions in terms of average spending per school (Katavi has by far the fewest schools of any region), suggesting large volumes of expenditure in a short period of time. If the money was spent well, this is very efficient, but it is also possible that spending in such a short period did not allow for entirely effective and efficient implementation (a risk of fast-tracked implementation negatively affecting value for money is noted by the FRA).

### Figure 11. LGA expenditure by region

**Total expenditure by component:**




**Average expenditure per school:**



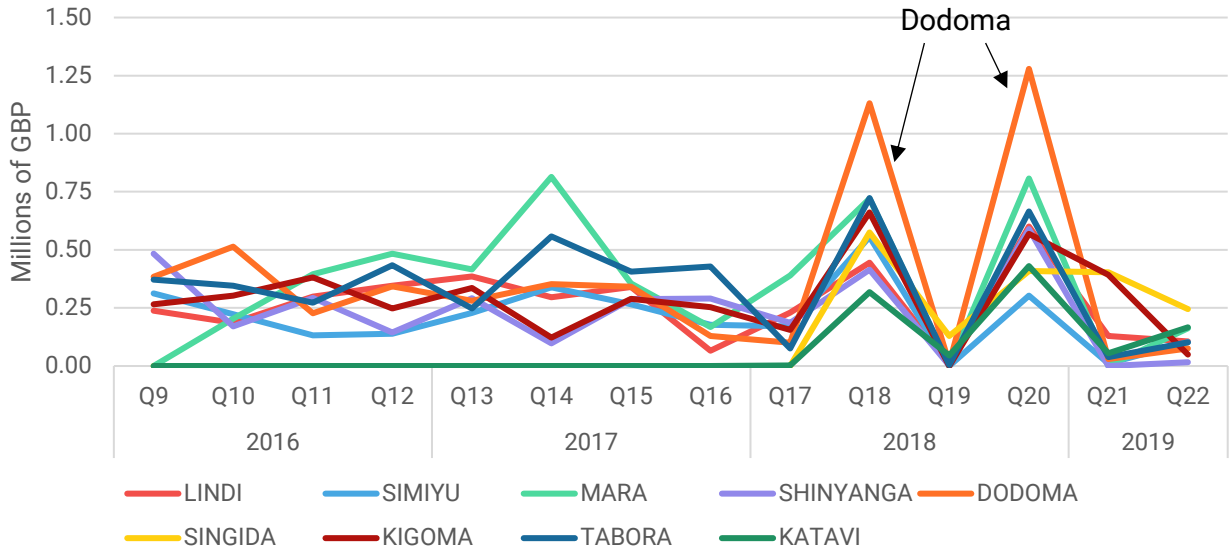

Source: EQUIP-T data. Includes spending from January 2016 to June 2019 inclusive.

### Flow of spending over time

The fact that Dodoma has been the highest spending region can be seen in its peaks in spending in Q18 (April to June 2018) and Q20, which far surpass other regions' peaks at the same points in time,

as seen in Figure 12 below. The peaks in Q18 and Q20 relate to school construction, discussed further below.

### Figure 12. Quarterly LGA expenditure, by region




Source: EQUIP-T data. Includes spending from January 2016 to June 2019 inclusive.

Figure 13 shows that the peaks for all regions in Q18 and Q20 were driven by spending on component 1. A further look at the spending by Epicor codes shows that these peaks were driven particularly by school construction activities, for which spending began in Q18 and predominantly took place in these two quarters. The progress report for Q18 confirms that 97% of funds for construction were disbursed to selected schools as intended in Q18 (EQUIP-T MA, 2018a). It reports that construction progress in Kigoma and Lindi was very low compared to the other seven regions; this cannot be seen in the spending data because this data signifies only transfer to schools for construction, rather than actual payments to suppliers and contractors. There was also an increase in component 1 spending on INSET activities in some regions in these quarters.

The MA's quarterly reports for Q19 and Q20 explain that the sudden dip in expenditure in Q19 relates to delays in funds: 'Due to the late arrival of Tranche 5 funding in Q18, there was a surge of activities from April to July which slowed again in July due to the late arrival of Tranche 6 funding. Tranche 6 has still not arrived at the LGAs and schools (for construction). This has delayed the second phase of construction, some SIS training, and the implementation of Early Grade Numeracy in the new regions.' (EQUIP-T MA, 2018b, p. 9). Low expenditure in Q19 is also likely related to the closing of financial systems by central government to pause spending in order to reconcile the previous annual expenditure. This was followed by an 'acceleration of implementation' in Q20 after the arrival of Tranche 6 (EQUIP-T MA, 2019a).

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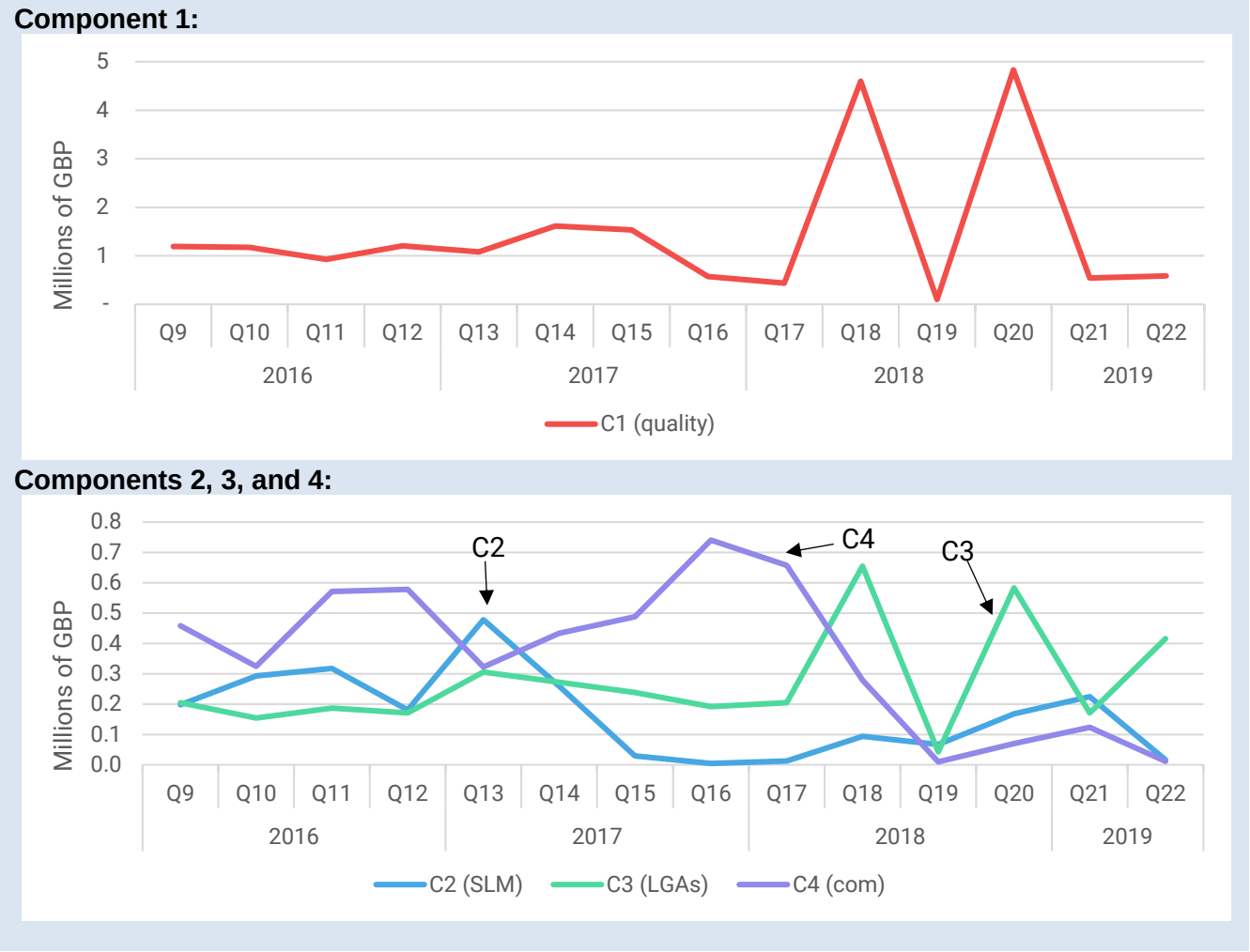
**Figure 13. Quarterly LGA expenditure, by component**




Source: EQUIP-T data. Includes spending from January 2016 to June 2019 inclusive.

Figure 12 and Figure 13 demonstrate how varied LGAs' spending was over time, given the jagged rather than smooth nature of the curves. This degree of variation also shows how spending had to be reactive to tranche delivery, rather than being able to be planned to be evenly distributed across a year. There are even quarters in which no spending took place in all the LGAs in some regions. Figure 12 also shows that with the possible exception of the introduction of construction in Q18, LGAs implemented activities and therefore executed their budgets at different times, since the peaks and troughs do not coincide across regions. With some exceptions,[28] the high peaks are likely to have involved implementation pressure for LGA officers (as well as oversight from regional officers and EQUIP-T regional staff) as their workloads increased in these periods, in terms of organising activities and managing fund disbursement to schools. Whilst this approach may appear efficient in terms of volume of expenditure, it could have a negative impact on the quality of implementation, as also noted in the FRA.

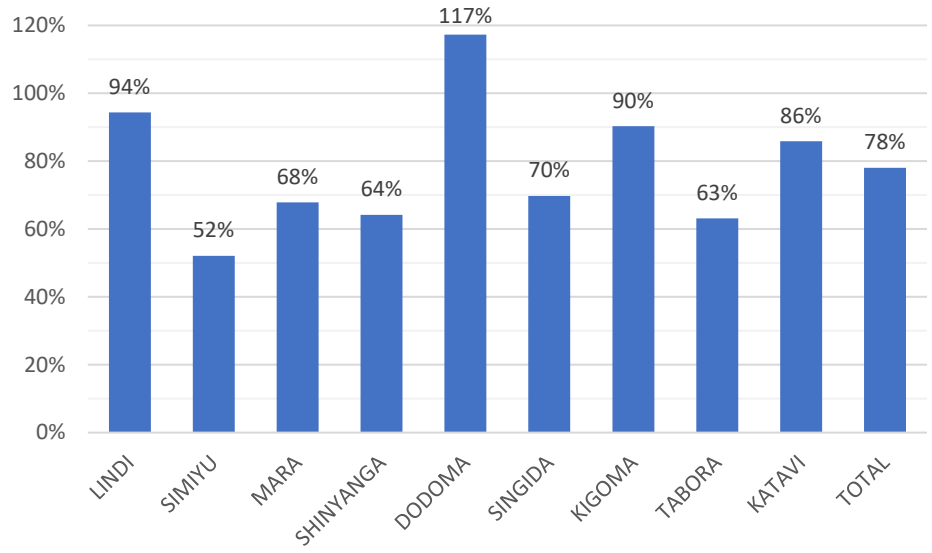
## LGA budget execution for 2018/19

Annual budgets were prepared for 2018/19, and therefore an analysis of budget execution can be conducted for this financial year. In 2018/19, budget execution rates for LGAs' spending varied across

[28] The implementation modality for some activities would not necessarily lead to implementation pressure, such as grants (e.g. IGA, PTP, construction), being passed onto schools.

region, from as low as 52% in Simiyu to as high as 117% in Dodoma, as shown in Figure 14. The ability to spend over 100% of budget is likely a result of remaining funds being carried over from the previous year. Particularly low budget execution in Simiyu, followed by Tabora and Shinyanga regions, could be due to various reasons: challenges with implementation within those LGAs; funds withheld due to the mismanagement of previous funds (virements[29]); the support they were given from the MA; or possibly a specific issue with transfers from MoFP to these regions. At least for these regions with particularly low execution rates, the budgets appear to have been over-ambitious for what the government and LGAs have the capacity to carry out.[30]

**Figure 14. Budget execution rates for LGAs by region, 2018/19**




Source: EQUIP-T data. Includes spending from July 2018 to June 2019.

Across all LGAs, Table 5 shows the execution rates by the 13 Epicor codes. Again, there is some substantial variation. LGAs spent far above the budget for three codes – 3Rs INSET; education grant management and planning; and WEO grants. The extra spend on 3Rs INSET suggests there was extensive additional activity carried out over and above what was initially planned. For other activities, it could be that spending was carried over from the previous year (particularly for IGA grants and PTP grants, which should have been completed in 2017/18).[31] The delay in tranches could mean that activities planned for 2017/18 shifted into 2018/19, and those planned for 2018/19 had to wait until 2019/20. The huge variation across all codes, except construction, suggests the annual budgets provide little guide to implementation and EQUIP-T instead worked with LGAs to plan mini-budgets based on tranche releases. Given this, the purpose of the annual budget in 2018/19 is unclear. Construction is the only code with close to accurate planning, although the expenditure records transfer to schools rather than actual spending on construction. Actual progress of execution against the construction budget is held in the school-level financial management system, and is not collected by EQUIP-T.

[29] EQUIP-T MA define a virement as funds diverted for other purposes.

[30] Capacity is interpreted broadly here and would relate to staff numbers and skills which affect the ability to deliver all the activities, LGAs' delays with quarterly reporting, which would lead to their next tranche being withheld, or virements in which for some reason the LGA has used EQUIP-T funds for other purposes, and then possibly had their next tranche delayed.

[31] It is also possible that LGAs record their spending under the wrong Epicor codes.

**Table 5. Budget execution rates for LGAs by code, 2018/19**

| Epicor code | Description | Budget (TZS m) | Expenditure (TZS m) | Execution rate |
|---|---|---|---|---|
| C04C01 | 3Rs (KKK) INSET | 1,360 | 4,959 | 365% |
| C04C02 | Community and school partnerships | 2,927 | 569 | 19% |
| C04C03 | Education grant management and planning | 243 | 433 | 178% |
| C04C04 | INSET contracting of teacher training colleges | 572 | 137 | 24% |
| C04C05 | INSET general | 11,671 | 3,173 | 27% |
| C04C06 | LGA education planning and management | 329 | 239 | 72% |
| C04C07 | PTP grants | - | 2 | - |
| C04C08 | School IGAs | - | 75 | - |
| C04C09 | SLM | 1,870 | 1,430 | 77% |
| C04C10 | WEO grants | 1,252 | 2,583 | 206% |
| C04C11 | LGA monitoring | 447 | 251 | 56% |
| C04C12 | Girls' Education and social inclusion activities | - | - | - |
| C04C13 | School infrastructure | 9,237 | 9,487 | 103% |
| | **Total** | **29,907** | **23,338** | **78%** |

Source: EQUIP-T data. Includes spending from July 2018 to June 2019.

## 3.4 How cost-efficient has the programme been in delivering (selected) outputs?

Cost-efficiency is the relationship between the money spent and the outputs produced.[32] This section reports on the average costs per beneficiary of the programme on various activities. The spending data is not disaggregated in a way that allows unit costs to be calculated for some of the specific activities, in which case these costs are shown at a higher (such as sub-component) level. The analysis shows unit costs, rather than the marginal or incremental cost of delivering the activity to one more beneficiary, because it is not possible to separate the one-off development costs from the variable costs of delivering interventions in the EQUIP-T data. (For this reason, these unit costs are not used in the scaling-up and replication cost analysis, which needs to use incremental costs.) In addition, these unit costs do not necessarily reflect what the optimal level of expenditure is for a given output – it could be that higher spending would lead to substantially greater outcomes, or that there were inefficiencies in activities and costs could come down due to the process of learning and iteration.

Cost-efficiency can be judged from unit costs, either by benchmarking against a standard, comparing across units that should have minimal variation, or over time for a recurring intervention. The programme did not set benchmarks for unit costs to assess against, and the data does not allow meaningful comparison with benchmarks from elsewhere. The data also does not allow a meaningful assessment of unit costs over time; however, it does allow for some comparison across regions.

[32] This study also does not look at the economy aspect of value for money (this is the relationship between money spent and inputs, i.e. whether inputs were purchased of sufficient quality and at the lowest price).

The analysis that follows is organised first by total spending of the MA and the LGAs together (so by total unit costs of the programme), and then by unit costs of LGA spending, which allows for comparisons of cost-efficiency between regions.

### 3.4.1 Unit costs – MA and LGA spending

This section looks at the unit costs based on total spending over six years on selected sub-components or activities divided by the average number of relevant beneficiaries (such as schools). It thus gives an average total spend for the six years per beneficiary. As activities have taken place intermittently but under single codes, we do not attempt to show *annual* unit costs but instead show *aggregate* unit costs. Programme spending has taken place over six years and in this time, the number of beneficiaries each year has changed. The programme began with five regions in 2014, increased to seven in 2015, and increased again, to nine, in 2017. As the spending is not categorised by region, the analysis uses an average number of beneficiaries per year to account for the changes over the implementation period.[33] As an example of what this means, whilst in 2019 there are nine regions and 63 LGAs in the programme, on average over the whole period there have been 6.2 regions and 44 LGAs.

It is not possible to analyse the variation in unit cost per school, but variations between regions in the LGA budget spending are shown in the next section.

The unit costs are presented in Table 6 below.

**Table 6. Unit costs of total MA and LGA programme spending**

| Sub-components | Unit cost metric | Unit cost GBP |
|---|---|---|
| 1A and 1B | Teachers and SRP spending per school | 5,906 |
| 1C | Construction spending per LGA | 141,137 |
| 2A and 2B | SLM spending per school | 1,420 |
| 3A and 3B | District planning and management spending per LGA | 155,762 |
| 4A and 4B | Communities spending per school | 1,768 |
| 5 | Monitoring and learning per school | 968 |
| 5 | Monitoring and learning per LGA | 83,294 |

Source: EQUIP-T spending and M&E data. These unit costs are for the period from February 2014 to June 2019, and are calculated as the total spend on the sub-component (MA and LGA spending) divided by the average annual number of relevant beneficiaries in the programme.

In the full period to June 2019, the EQUIP-T programme spent on average £5,900 per school on activities to improve the performance of teachers and the SRP (sub-components 1A and 1B). The LGA spending on SRP cannot be separately identified in order to split this amount further. This spending has included developing and distributing teaching and learning materials for children, as well as training materials for teachers, delivering training sessions, and setting up and running school readiness centres. Construction spending has equalled approximately £140,000 per LGA. LGAs were intended to each have funds for building four satellite schools and completing four unfinished classrooms; however, the unit cost here also includes design and oversight activities.

[33] Specifically, 2014 is treated as six months of implementation to account for activity starting in the second half of the first year, with five regions. 2015 to 2017 are treated as three full years with seven regions, and 2018 and 2019 are treated as one-and-a half years with nine regions.

Efforts to strengthen SLM have cost on average over £1,400 per school. This includes the development of the school leadership framework, training materials, and the delivery of training. The cost of the SIS tablets is not included in this amount as they were purchased under the M&E component.[34] The EQUIP-T MA has spent on average roughly £156,000 per district on component 3, district planning and management. This includes grants for WEOs, and training on EQUIP-T decentralised grant management.

Under component 4, communities, around £1,800 has been spent on average per school to improve community participation and accountability, and to ensure more inclusive education. This includes the training for school committees, the formation of PTPs, noticeboards, PTP, and IGA grants. Spending on component 5, programme monitoring and learning, cost almost £1,000 per school on average, over £83,000 per LGA.

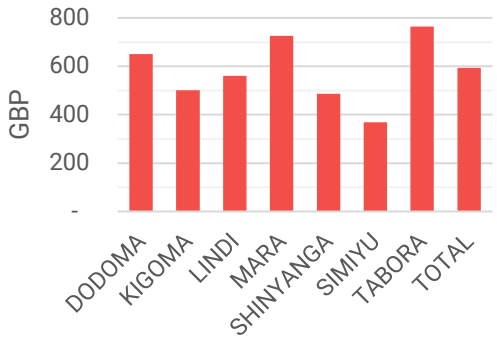
### 3.4.2 Unit costs – LGA spending

Average spending by LGAs per relevant beneficiary varies across the regions. The average spends across aspects of components 1 to 4 are shown in Figure 15 through to Figure 22 below. For this analysis, data for Singida and Katavi was excluded because, having spent less time in the programme, their spending would not be strictly comparable.[35] As the spending has taken place over more than three years (13 quarters of spending), the charts show the unit cost of rolling out the full package of EQUIP-T up to mid-2019. The data on numbers of beneficiaries comes from EQUIP-T's M&E data, and assumptions have been made to allow for meaningful analysis.

[34] This spending has not been identified by budget line in order to calculate an average spend on tablets per school.

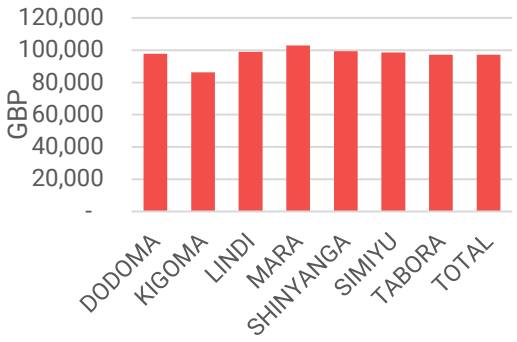
[35] In addition, much of the monitoring data was missing for Singida and Katavi.

**Figure 15. LGA unit cost: 3Rs INSET spending per teacher trained**



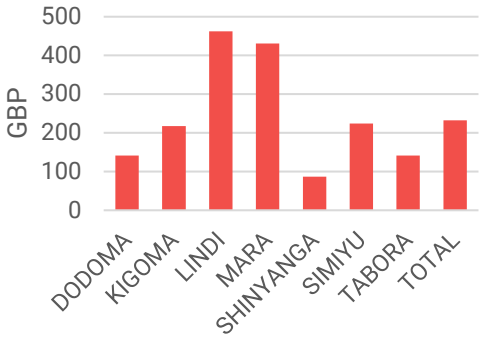

Numerator: spending on codes 3Rs INSET and teacher training college (TTC) payments. Denominator: average number of teachers trained across six sets of numeracy and literacy module training.

**Figure 16. LGA unit cost: school infrastructure spending per LGA**




Numerator: spending on school infrastructure. Denominator: total number of LGAs in the region.

**Figure 17. LGA unit cost: SLM spending per manager**




Numerator: spending on total SLM. Denominator: average number of participants over three sessions of SLM training.

**Figure 18. LGA unit cost: LGA office spending per LGA**


Numerator: spending on education grant management and planning, LGA education planning, and LGA monitoring. Denominator: number of LGAs in the region.

Source: EQUIP-T spending and M&E data. Spending data is for LGAs from January 2016 to June 2019.

To calculate unit costs of teacher INSET, the total spending on teacher training was divided by the average number of participants at the early grade literacy and numeracy residential training sessions.[36] On average, it has cost LGAs £600 to train one teacher in the full package of literacy and numeracy modules, as shown in Figure 15.[37] However, this figure varies substantially, from around £370 in Simiyu to over £760 in Tabora.

For SLM spending (Figure 17), Lindi and Mara are outlier regions with unit costs far higher than the other regions. This chart shows the average spending to deliver the SLM package to one beneficiary: a head teacher, assistant head teacher, or WEO. Here, Lindi spent £460 per manager and Mara £430, compared with £90 in Shinyanga, and an average of £230 across the regions.

[36] LGAs had some discretion in how they organised their training; however, the average number attended for each region works out at between 2.8 and 3.3 teachers per school.

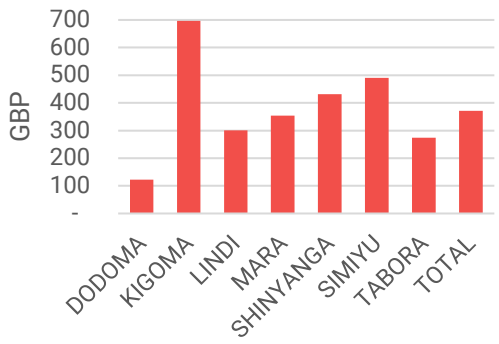
[37] However, this does not include the cost of training modules, which was incurred by the MA rather than at LGA level.

Spending on school infrastructure has been more consistent (Figure 16), at £97,000 per LGA on average, reflecting the fixed amounts budgeted for each LGA. The slightly lower spending for Kigoma, at £86,000, suggests a possible error in the data. This part of the programme was designed to cover the building of four satellite schools and the completion of four unfinished classrooms in each LGA (EQUIP-T MA, 2018c), so spending is expected to be consistent across LGAs. The intended amount was approximately TZS 290 million per LGA, and the average found here is almost exactly correct, at TZS 289 million. However, this represents the amount transferred to schools by LGAs for spending on construction, rather than the actual amount of spending so far (as reported in KPMG, 2019). This means the actual progress of spending on construction is not presented here and possibly not held or known by the MA.[38] The actual progress in terms of construction completion (rather than spending) is collected from government by the MA for the logframe.

Dodoma region's LGAs spent by far the most out of all the regions on component 3 activities, which are at district-office level (such as school monitoring) (Figure 18), at £35,000 per LGA, and yet spent almost the least on building community partnerships (Figure 19). In both cases, Dodoma is so far from the average spending that it raises doubts about the accuracy of this data. On average, LGAs spent £12,700 on district management activities over the total three years. LGAs spent £370 per school on community and school partnerships, which includes training for school committees, establishing PTPs and training on PTP grants.

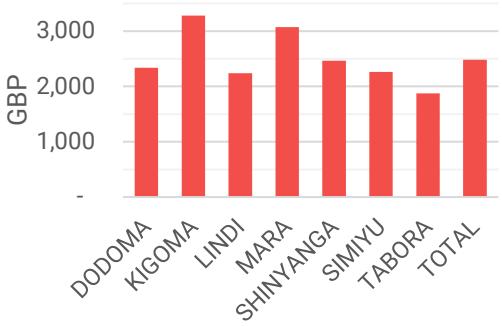
[38] Comments from the MA on an earlier version of this report noted: 'We have some solid evidence that schools maintained a detailed record on expenditures (including vouchers and procurement records)' and 'EQUIP-T did not duplicate the effort to establish actual spending per each school.'

**Figure 19. LGA unit cost: community partnership spending per school**



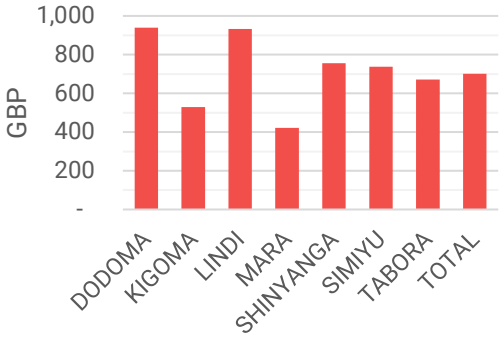

Numerator: spending on school and community partnerships. Denominator: number of schools in the region.

**Figure 20. LGA unit cost: average WEO grant**



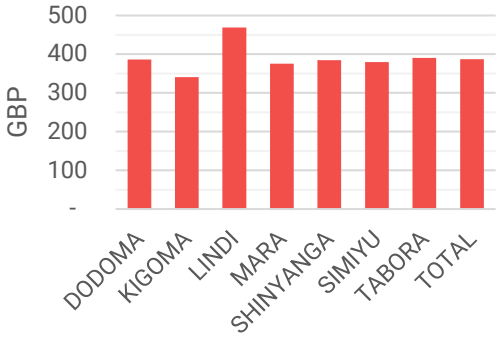

Numerator: total spending on WEO grant. Denominator: number of wards in the region.

**Figure 21. LGA unit cost: average IGA grant per recipient school**




Numerator: spending on IGA grant. Denominator: the number of schools with IGA grants.

**Figure 22. LGA unit cost: average PTP grant**




Numerator: spending on PTP grant. Denominator: number of schools in the region.

Source: EQUIP-T spending and M&E data. Spending data is for LGAs from January 2016 to June 2019.

Figure 20 to Figure 22 show average spending per beneficiary on three specific grants: WEO grants; PTP grants; and IGA grants. These should all be consistent across LGAs because a unit cost was applied in the budgets.[39] In the case of the WEO grant, although individual WEOs are meant to have received an amount that reflects their need, with some receiving more and some less, the average should come out the same at the LGA level and certainly at the regional level. The average grant should be TZS 2.5 million per WEO per year (TZS 620,000 per quarter), which would total TZS 8 million over the 3.5 years of implementation. However, it ranged from a total of £1,900 (TZS 5.5 million) in Tabora up to £3,300 (TZS 9.8 million) in Kigoma, with an average of £2,480 across all regions. This suggests that WEOs in Kigoma received almost double the amount of grant as those in Tabora, equivalent to TZS 2.8 million per year in Kigoma but only TZS 1.6 million in Tabora.

The IGA grant amount was TZS 1.5 million (approximately £490), to be awarded to 50% of schools in all LGAs, according to programme guidelines. Thus, the average grant per IGA recipient schools should be around £490; however, the average amount is far above that at £700 (TZS 2.1 million), as

[39] The denominators for WEO grants and PTP grants are the number of WEOs in 2019 or schools in 2019. There has been very little change in these numbers of units over the years of the programme.

shown in Figure 21. Again, there is further wide variation, from £420 per school in Mara to over £930 per school in Lindi and Dodoma. This raises questions about the reliability of the data as such a level of variation is not expected from the implementation guidelines.

Figure 22 shows the average PTP grant per school. All schools should have received two instalments of the PTP grant, both worth TZS 550,000; this represents a total of TZS 1.1 million, which would be approximately £360 per school. Actual average spending on the PTP grant comes out close at £390. Some variation is to be expected with exchange rate shifts or changing numbers of schools. The actual variation between regions is most notable for Lindi at £470 per school.

Receiving this data took multiple rounds of queries from the evaluation team to the MA, due to patterns which suggested errors. As seen from the unexpected variations in unit costs across a number of activities, there may still be errors in the data provided for this evaluation. This could be due to the process of recording and collating spending data within the MA, but also could reflect inconsistent coding and reporting practices across LGAs and regions, with LGAs reporting certain activities under different Epicor codes to other LGAs. It may also reflect different levels of efficiency, and could show both cases of inefficient spending where there is a high spend (spending more than needed), and inefficient implementation (not having delivered all the activities originally planned) where there is a low spend. In order to uncover the reality, more detailed information on what spending has taken place under each code, and activity reports (with accurate beneficiary information) associated with the spending, would be needed. This type of efficiency analysis, and even the basic checking of average levels of expenditure, does not appear to have been carried out by the programme as part of their routine monitoring, limiting transparency and accountability.

### 3.4.3 Relationship between actual unit costs, and scaling-up and replication cost analysis

The unit cost data presented in this section shows the average cost over the programme lifetime per beneficiary. This is not appropriate to use for estimating the cost of replication and scaling-up the activities for a number of reasons. Firstly, the costs here included initial programme and material development costs, which would not be relevant for the future continuation or roll-out of the activities. For this reason, a bottom-up costing approach[40] is used in the next chapter; this takes market prices for unit costs for specific ingredients of each activity (including at national, regional, LGA, and school level). The second reason is that the unit costs of spending on grants here show that there is either inconsistent implementation or unreliable data and recording of spending. This does not reflect what the costs should be based on the intended model. Thus, the next section uses the normative costs attached to the grants – TZS 1.5 million for schools receiving IGA grants and a total of TZS 1.1 million for schools receiving PTP grants.

[40] This is the standard method used and recommended in education sector cost analysis. See J-PAL: https://www.povertyactionlab.org/research-resources/cost-effectiveness

# 4 Costs of replication and scaling-up activities

This chapter presents the costs associated with rolling out three EQUIP-T activities in all regions in Tanzania. The activities are the continuous professional development/INSET model for teachers; PTPs; and IGA. The cost analysis assumes that regions which already received the activity continue to run the activity (replication in 'old' regions), and that the activity is rolled out to regions which have not previous received it (scale-up in 'new' regions). For each activity, two scenarios are included:

- A maximum (high-cost) scenario, which is closer to how EQUIP-T managed the activity; this tends to include refresher training sessions (periodic repeats of the original training), and grants for PTPs and IGA.
- A minimum (low-cost) scenario, which is closer to the model the government is currently considering; this excludes grants and refresher training sessions.

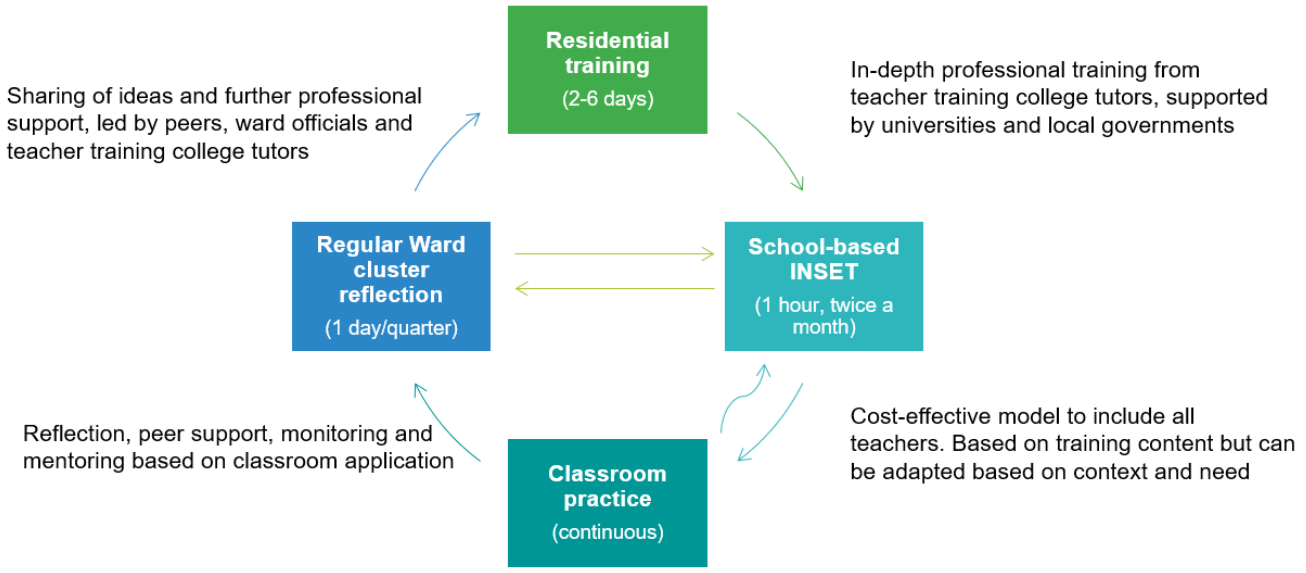
In all cases, materials (training manuals, activity manuals, teaching modules) are assumed to be distributed once only. This means no new materials are distributed in existing regions, which continue to have the activities replicated, since they have already received the materials. If materials were to need replacing due to wear and tear or loss, this would increase the costs. The methodology and broad assumptions were discussed in section 2.3; more detailed assumptions are given in Annex A.2. Costs are given in constant 2019 prices, and are presented both as an average annual cost for the five-year period, and with the cash flow which would be needed for each year in the period.

## 4.1 INSET

### 4.1.1 What is the activity?

EQUIP-T uses a continuous professional development model that at its core is a school-based INSET programme. The training was predominantly targeted at early grade teachers (Standards 1 and 2) but has content which may be beneficial for all primary school teachers, particularly in terms of general and gender-responsive pedagogy. The training included a mix of residential and school-based training sessions. Figure 23 provides a schematic representation of EQUIP-T's training model for teachers, which has evolved over time.

**Figure 23. EQUIP-T's model of INSET for teachers**



Source: EQUIP-T MA, presentation at Education and Development Forum (UKFIET) conference, Oxford, September 2017. This has been adapted to reflect the assumptions in the model used for this exercise.

Based on information derived from interviews with EQUIP-T and government staff, the model used for estimating the future costs is as follows. The continuous professional development cycle starts with residential training at the district level. This is attended by three teachers per school, including INSET coordinators,[41] plus head teachers and WEOs, who attend for one day only. This training is delivered by tutors from TTCs, and is where the modules are initially covered. Following this, in-service coordinators and sometimes other teachers who have attended the district-level training facilitate bi-monthly school-based INSET sessions using group self-study and peer learning methods linked to classroom practice. In this model, all teachers attend the school-based sessions; on average these last for one hour, and are held twice per month.[42] Following this, three teachers per school (likely the in-service coordinator, head teacher and another teacher) attend a ward-cluster meeting each quarter with teachers from other schools in the cluster (a collection of wards), and this is facilitated by tutors from the TTCs.

This model would roll out 13 modules of Kiswahili literacy training, 13 modules of numeracy training, one module on gender-responsive pedagogy, and one module on general effective pedagogy – 28 modules in total. EQUIP-T also rolled out videos, via SD cards, for teachers to watch via the tablets which had been distributed to schools for the SIS under component 2. Following discussion with PO-RALG, it is not clear that tablets would be scaled-up nationwide, so no additional cost of providing tablets or SD cards is included. The modules and training manuals are rolled out with the initial training in new regions, but not at any refresher training (and so no materials are distributed to existing regions).

In addition to this, officers from the regional level and LGAs attend orientation training on the INSET so that they are aware of what is being delivered to the teachers. Also, in new regions, TTC tutors would be trained by university lecturers (who have already been conducting this training over the last five years) so that they are then equipped to roll out the modules to teachers.

In the maximum scenario, refresher training is held every three years (for orientation as well as teacher residential training). This is to account for diminished knowledge and changes away from best practice over time, as well as likely turnover in trained personnel (particularly of the INSET coordinator). The minimum scenario does not have refresher training, which means only school-level and ward-cluster level training takes place after the initial district-level training (so for existing regions, there is no district-level training at all in the minimum scenario as the modules have already been rolled out).

This model is replicated/continued in the nine EQUIP-T regions, and scaled-up/rolled out in the 17 other regions. These ‘new’ regions include the four Tusome Pamoja regions, which have received INSET but not this particular set of modules.

In an interview with MoEST, this study learned that the government is planning to roll out a continuous professional development model for teachers as part of the new GPE LANES 2 programme. This would apparently use the EQUIP-T modules, and similarly depend on school-based training, but make

[41] A staff member selected by the head teacher to coordinate all EQUIP-T in-service training activities and to facilitate school-based training sessions.

[42] EQUIP-T’s model is that this is compulsory only for Standards 1 and 2 teachers. Reports from schools visited for this study suggest that they expect all teachers to attend. According to the quantitative and qualitative endline studies, it is true that many (though not all) other teachers do attend, and that teachers feel it would be beneficial for all teachers to attend.

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more use of teacher resource centres[43] (rather than TTCs). As no programme documentation was available, the EQUIP-T model of using TTCs is still used here; however, it is possible that substituting TTC tutors with staff from teacher resource centres would have little impact on cost if the model also requires longer stints of residential training followed by local (as per ward/cluster) reflection sessions.

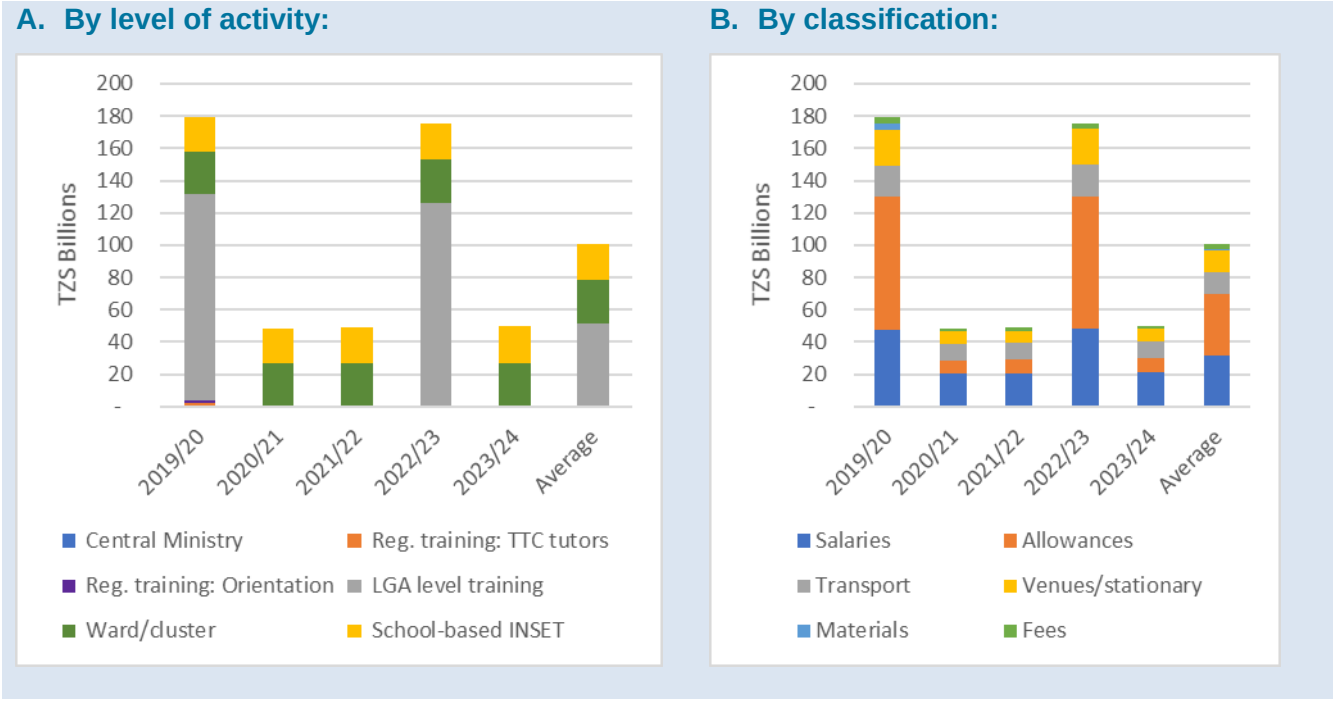
The full assumptions for the implementation model are given in Annex A.2.

### 4.1.2 Results for maximum scenario for INSET

The annual costs of replicating INSET in existing regions and scaling-up to new regions is shown in Figure 24 below. Panel A on the left shows these costs grouped according to the level of the activity; Panel B on the right shows costs according to classification that could be used in the government's budget (based on the chart of accounts).

The first observation is that the costs vary substantially year on year. In the first and fourth years, costs are much higher – at close to TZS 180 billion in both years; yet costs are closer to TZS 50 billion in other years. This reflects the inclusion of district-level residential training for teachers in the first and fourth years, the large sections of LGA-level training in Panel A. For new regions, this is the first roll-out of the modules in 2019/20. For existing regions, this is refresher training (without materials), whilst 2022/23 is refresher training for all regions. In all years, the amount used for school-based INSET (the time needed for teachers to attend, and a small amount for stationery or snacks) and ward/cluster reflection meetings remains fairly constant. Other levels of costs are negligible in comparison. These are the costs of the central ministry (organising procurement of materials), regional training of TTC tutors, and orientation training of regional and LGA officers.

**Figure 24. INSET maximum scenario: cost of replicating and scaling-up**




[43] Teacher resource centres are local hubs which provide support to teachers and help them to improve their teaching and learning, such as through in-service training. They were established across Tanzania in the 1980s.

Panel B shows that in the more costly first and fourth years, almost half of this cost (TZS 80 billion) comes from paying allowances to the participants and facilitators for attending the various training sessions. The costs are based on using government allowance rates; TZS 17 billion could be removed from the total cost in each of these years if EQUIP-T allowance rates were used.

The next largest type of cost is salaries. This is the time spent by government staff – from ministry officials at PO-RALG, MoEST, and TIE through to the TTCs, regions, LGAs, and teachers – in preparing for and attending the INSET sessions. Whilst this cost may not appear on a budget if the government is estimating the budget for INSET, it is a substantial economic cost to the government given the time these staff could otherwise be working on something else. For teachers, this is time away from the classroom or away from preparing lessons and marking. For LGA, regional, and ministry officials, if they were not previously underutilised, this could imply the government would need to recruit more staff to cover these responsibilities. The salary cost is close to TZS 50 billion in the high-cost years, and TZS 20 billion in other years, making TZS 30 billion as an annual average.

Other relatively smaller costs are transport allowances (for attending regional, LGA, and ward/cluster sessions), and venue and stationery costs. These venue costs relate to training packages – contribution to facilities where needed (though largely training is assumed to take place in schools or government buildings with no alternative use or cost), snacks, stationery such as flipcharts. They also include stationery for holding school-based training (which might be paid for from capitation grants). Materials are the costs of purchasing and distributing the training manuals and modules, and only takes place in the first year and only for new regions. The purchase of materials (facilitators' guides and modules) makes only a very small contribution to the overall cost. Fees are those paid to university lecturers (for training TTC tutors) and to TTC tutors (for LGA training and ward/cluster training). Whilst salaries are built into existing budgets, fees are an explicit financial transaction required for the training.

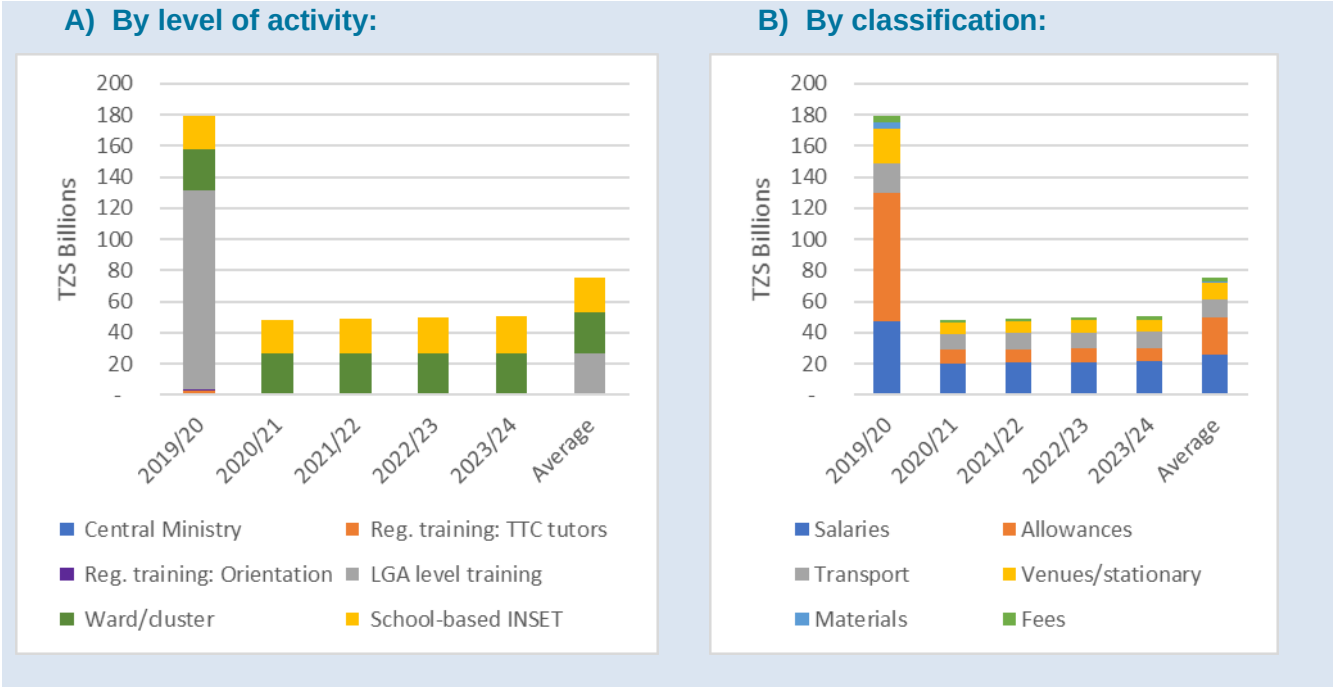
In summary, the average cost of INSET in the maximum scenario is TZS 100 billion per year, or TZS 70 billion per year if the cost of salaries is excluded.

### 4.1.3 Results for minimum scenario for INSET

The main difference between the maximum scenario, discussed above, and the minimum scenario, shown in Figure 25 below, is the removal of the refresher training in 2022/23. The minimum scenario does still assume a refresher for the existing regions in the first year, in order to reinforce continuation. However, after this first year, both types of regions (existing and new) hold quarterly ward/cluster and fortnightly school-based training and do not come back for residential training.

The costs of the first year are the same as in the maximum scenario, coming to TZS 180 billion, and the average annual cost when this is spread over five years is TZS 75 billion. This would imply, for instance, that if the government continued this cycle with refresher training once every five years, even replacing the printed materials (since these are a very small cost), it would cost on average TZS 75 billion per year. Excluding salaries, this is TZS 50 billion which would need to be budgeted for.

**Figure 25. INSET minimum scenario: cost of replicating and scaling-up**




## 4.2 PTPs

### 4.2.1 What is the activity?

PTPs are class-based groups of parents and teachers established to bring parents closer to the classroom. PTPs are intended to consist of 21 members: one father and one mother from each of the seven standards, and seven teachers. Participation and membership are voluntary. EQUIP-T's purpose in supporting the establishment of PTPs is to 'increase parents' representation and bring them closer to the classroom in order to develop stronger home-school partnerships' (EQUIP-T MA, 2015, p. 3). The responsibilities, roles, and activities of PTPs are meant to be decided at school level based on each school's needs and priorities. The focus is on classrooms, with parents actively supporting classroom activities and helping to address problems such as pupil absence and dropout, and teacher absence. PTPs are also meant to come up with their own priorities based on specific class needs.

The model for setting up PTPs starts with orientation for regional and LGA officers, who then facilitate a two-day residential training for the head teacher and WEO. Following this, the head teacher holds a full parents' meeting,[44] where the PTP concept is explained and the members (particularly the parent members) are elected. The PTP membership lasts for one year and new members are elected in the same way every year.

EQUIP-T provided two 'PTP grants', both of TZS 550,000 per school. PTP grant 1 was made up of TZS 100,000 for PTP activities and the remainder for general school improvement. PTP grant 2 was intended for girls' education activities. Both grants came with manuals that the head teacher uses to

[44] In the EQUIP-T model, the head teacher is also supposed to train the school committee on their roles and the formation of the PTP. Schools did not emphasise this step in interviews for this study, so any cost associated with this is not included.

train the school committee and PTP members to guide planning and the use of the grants. To spend PTP grants, schools had to follow standard government financial procedures.

Interviews with PO-RALG revealed that the government is developing a revised PTP formation manual which draws on experience and best practice of PTP implementation by both EQUIP-T and Tusome Pamoja.[45] The government does not anticipate providing PTP grants due to the resources involved. Here, the maximum scenario includes the provision of PTP grants to schools in new regions (once), given that this is associated with the level of engagement and activity of PTPs experienced under the EQUIP-T programme. Including the grants is thus a more representative estimate of what it takes to replicate and scale-up PTPs as seen under EQUIP-T. The minimum scenario does not include grants, and thus the activity and impact of the PTP may be different to that found in EQUIP-T regions.

In the maximum scenario, a one-day refresher training on the set-up and roles of PTPs is held every three years in both existing and new regions. No refresher is held in the minimum scenario, and the initial roll-out training is assumed to last for only a single day in new regions. Materials for PTPs – training manuals, PTP formational manuals, and grant manuals – are distributed only to new regions (except the revised formation manual, which must go to existing regions too), and only for the initial training.

The full assumptions for the implementation model are given in Annex A.2.

### 4.2.2 Results for maximum scenario for PTPs

Figure 26 below shows the annual costs of replicating PTPs in existing regions and scaling-up to new regions. As with the diagrams for INSET, Panel A on the left shows these costs according to the activity, and Panel B on the right shows the costs according to the accounting classification.

The most prominent is the cost of the PTP grants, distributed to all schools in new regions in the first year, and accounting for half (over TZS 9 billion) of all costs in this year. When averaged over five years, the total cost is just under TZS 7 billion, of which almost TZS 2 billion are related to the grants (but only for the 13 new regions which have not already had PTPs).

Both existing and new regions receive a training session in the first and fourth years, which is why these two years have higher costs (in addition to grants) and why allowances, transport, and venues can be seen in these years. The rationale for the refresher training is to remind and reinforce the idea behind PTPs, their formation, their potential roles and responsibilities, and how PTPs fit alongside school committees. This training is particularly relevant given the high turnover of head teachers.

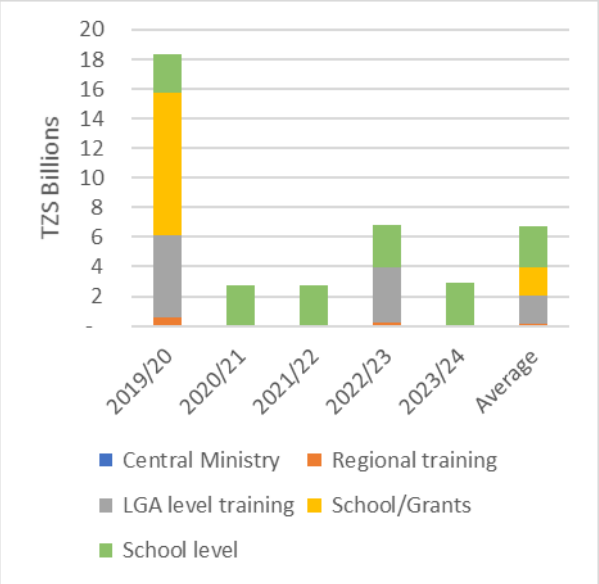
All years face a fairly constant amount of ‘school level’ costs, which are salaries. This is the cost of all teachers attending parents’ meetings to establish the PTPs each year (lasting half a day per year), and thus is not related to the grant but would occur anyway. This economic cost means that teachers are taken away from time when they might otherwise be teaching or preparing for lessons, and thus these parent meetings should be considered a critical and necessary part of the teachers’ jobs.

The average annual cost of PTPs in the maximum scenario is TZS 6.7 billion per year, or TZS 3.4 billion if salaries are excluded.

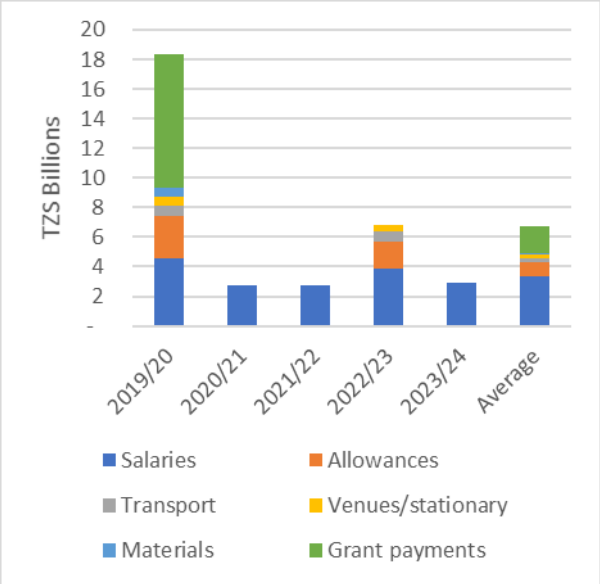
[45] This revised manual is assumed to have the same unit cost as the previous manual provided by EQUIP-T.

**Figure 26. PTP maximum scenario: cost of replicating and scaling-up**

**A. By level of activity:**




**B. By classification:**




### 4.2.3 Results for minimum scenario for PTPs

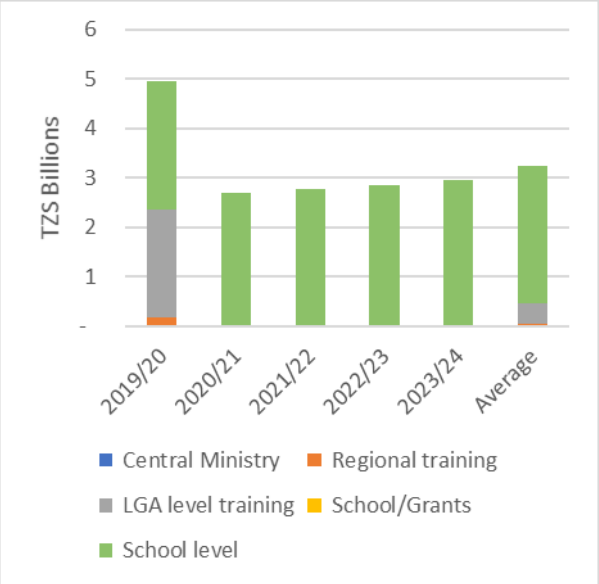
The minimum scenario does not include grants and does not provide refresher training in either new regions or existing regions. This substantially reduces the costs of PTPs, as seen in Figure 27 below. After an initial injection of TZS 5 billion in order to distribute PTP manuals and train WEOs and head teachers on PTPs, the annual cost is then less than TZS 3 billion per year. As with the maximum scenario, this cost is the time required from teachers to attend parent meetings (and increases as the number of teachers increases).

Thus, the minimum scenario costs on average TZS 3.3 billion per year, only TZS 370 million of which needs to be budgeted for if salaries are excluded. In fact, after a budgetary cost of TZS 1.9 billion is incurred in the first year to scale up PTP formation training to new regions, the only cost after this point, in all regions, is the cost of salaries, which the government would not expect to prepare an additional budget for.

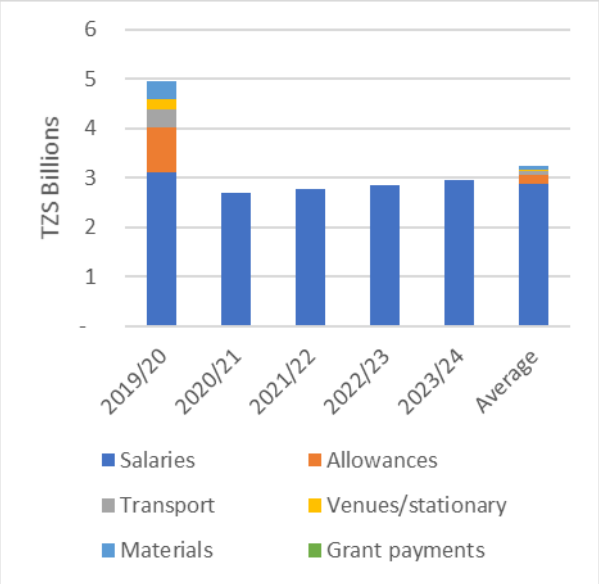
Whilst this scenario requires relatively little additional budgetary outlay for the government, the absence of grants is likely to have an effect on how active and engaged PTP members are. The qualitative endline study (OPM, 2020a) found that members of PTPs became active once the grants were distributed and they had a clear role in mobilising community support and supervising grant activities.

**Figure 27. PTP minimum scenario: cost of replicating and scaling-up**

**A. By level of activity:**




**B. By classification:**




## 4.3 IGAs

### 4.3.1 What is the activity?

The IGA part of EQUIP-T is intended to address both the challenge of limited financial resources at schools, as well as to build the relationship with community members through participation in IGA projects. IGA, on its own, is an activity to generate income or resources in-kind for the school, in addition to the funds it receives from standard sources, such as capitation grants. For instance, a school may set up an agricultural business to plant, harvest, and sell vegetables, to generate additional income for the school. EQUIP-T introduced training on how to develop business plans for head teachers, teachers, and community leaders, to encourage communities and schools to work together to generate additional funds for school improvement through IGAs. Schools submitted business plans and applications, and then 50% of schools (selected by the LGA) received a grant of TZS 1,500,000 as seed funding.

The implementation model for IGA starts with the training of regional and LGA officers, with officers from the education department (adult education, and district academic officers and district statistics and logistics officers) and other departments (agricultural, cooperative, extension, business, community development). These LGA officers go on to train school level representatives: the head teacher and project teacher (*mwalimu wa miradi*),[46] a school committee member, and village leader, as well as the WEOs, with a three-day cluster-level (non-residential) training. Following this, those who have been trained work together with other teachers, the school committee, and PTP to agree and finalise a business plan and application. LGA officers review these applications and choose which schools will receive the IGA grant.

[46] Each school has a 'project teacher' responsible for non-academic projects and small works/maintenance; this includes school farms, and school environment issues such as flowers and water access.

The maximum scenario rolls out IGA training and grants to new regions (all regions except the original seven EQUIP-T regions who have already received this). Refresher training is held every three years to reinvigorate the efforts to conduct IGA projects within schools, this is held in both new and existing regions.

In the minimum scenario, it is assumed there is no grant, and therefore school and LGA staff do not spend time on developing and reviewing applications. Without a grant, the training would cover the content on establishing an IGA project and possibly ways to generate start-up funding. This training would be held only once in new regions, with no refresher training in new or existing regions.

The full assumptions for the implementation model are given in Annex A.2.

### 4.3.2 Results for maximum scenario for IGA

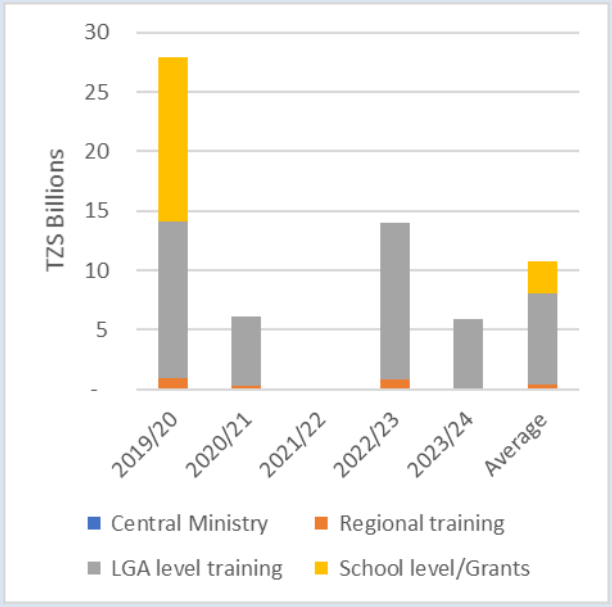
The annual costs of replication and scaling-up IGA in the maximum scenario are given in Figure 28 below. The annual cost varies each year – due to the uneven nature of the activities – from as high as TZS 28 billion in 2019/20 to zero in 2021/22.

Panel A on the left shows that the provision of IGA grants is a substantial contribution to the overall costs. In 2019/20, total costs are TZS 28 billion, and grants are almost TZS 9 billion of this; the related work to prepare grant applications brings the total cost associated with the grant up to TZS 14 billion. Grant applications are prepared by all schools in the new regions, but grants are distributed only to 50% of these schools.

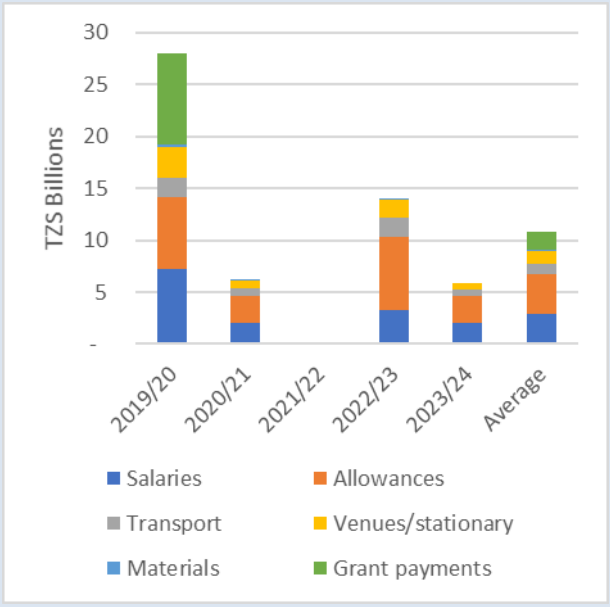
The other costs relate to holding regional and LGA-level training sessions to train staff on how to plan and set up IGA projects. In new regions, this is held in the first year, and is associated with the grant application process, and in the fourth year, providing a reminder of how to set up and run projects. In existing regions, this is to be held every three years – this refresher training therefore happens in 2020/21 and 2023/24 (since IGA was first carried out in 2017).

**Figure 28. IGA maximum scenario: cost of replicating and scaling-up**

**A. By level of activity:**




**B. By classification:**



The average annual cost of IGA in the maximum scenario is nearly TZS 11 billion. If salaries are excluded, the government would need to budget TZS 8 billion on average each year.

### 4.3.3 Results for minimum scenario of IGAs

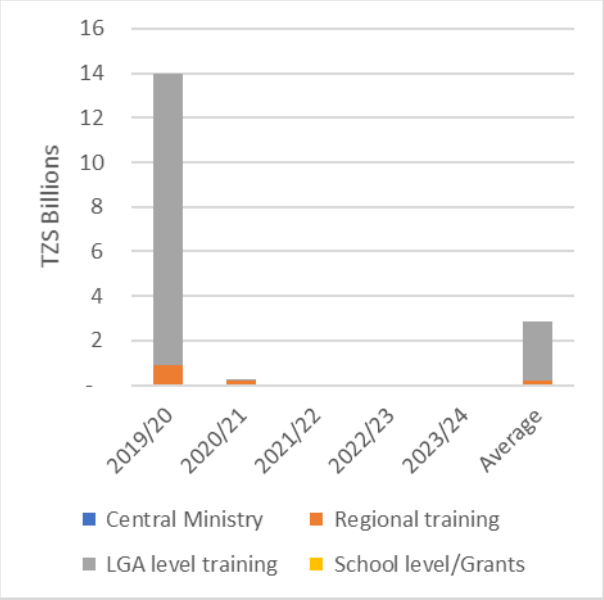
In the minimum scenario, scaling-up IGA involves only running training sessions on setting up IGA projects in the new regions in the first year, which would cost TZS 14 billion. In the second year, a small number of materials are distributed to existing regions because the government has developed a new operational manual for IGA. These costs are shown in Figure 29.

The roll-out of IGA training in new regions costs substantially more than the roll-out of PTP training. This can be explained largely by three factors. First, there are more 'new IGA' regions – IGA has been implemented only in seven regions up to now, whereas PTP has been implemented in 13 regions, so there are 19 'new' IGA regions, as opposed to only 13 'new' PTP regions. Second, IGA training involves bringing eight attendees from each LGA, and four from each school, which is much higher than PTP training, where the level is only four per LGA and one per school. Third, IGA training is slightly longer – three days at LGA level, compared with two days for PTP training.

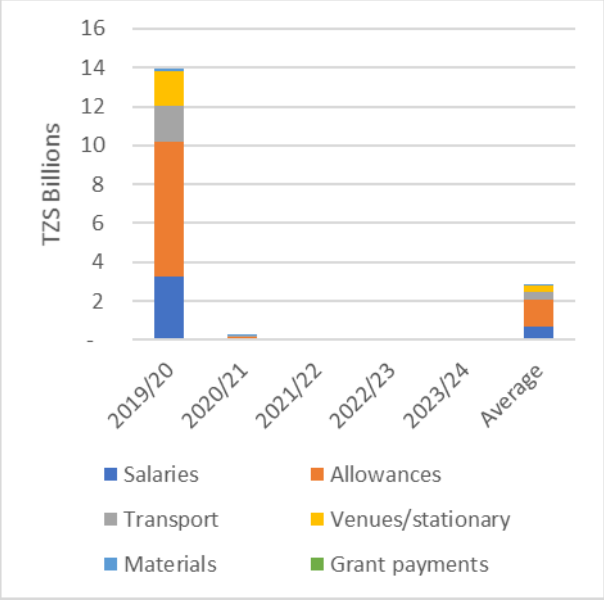
As with PTPs, the IGA minimum scenario is much lower cost than the maximum scenario, and if salaries are assumed to already be budgeted for, the cost is 'only' TZS 11 billion in the first year. However, it is not clear how effective this spending would be. The experience with IGA in EQUIP-T regions included a grant as seed funding, which energised schools – half of schools had this grant to work with. The other half of schools may have not carried out IGA projects without the grant, and if they did still set up projects, the incentive of applying for the grant may have triggered this enthusiasm and organisation. Without grants, it is likely that far fewer schools would take action to start IGA projects.

**Figure 29. IGA minimum scenario: cost of replicating and scaling-up**

**A. By level of activity:**



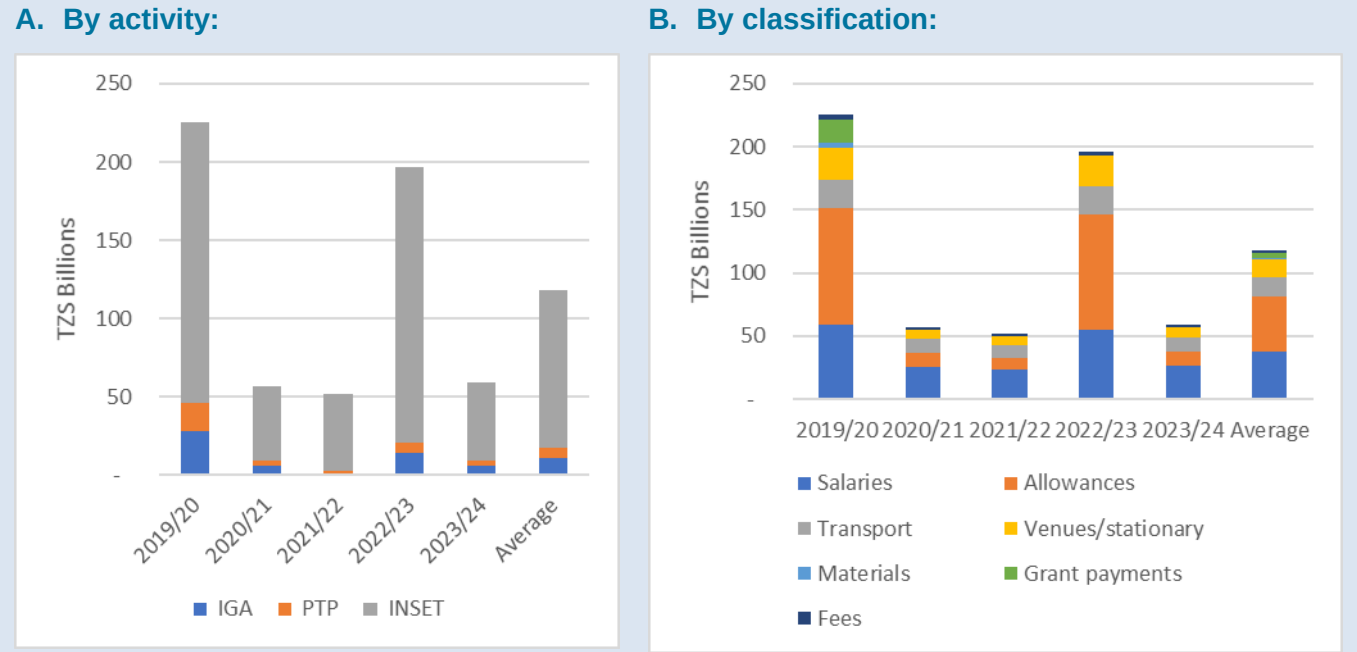

**B. By classification:**



## 4.4 All three activities

Figure 30 brings together the costs for all three activities – INSET, PTPs, and IGA – in the maximum scenario. The average annual spend over the five years is TZS 118 billion. Panel A on the left shows that 85% of this cost is from INSET; Panel B shows that grant payments actually make up less than TZS 4 billion as an annual average. Given the prominence of INSET, allowances are the largest cost component, as seen in Panel B, followed by salaries. If salaries are not considered as an additional cost, this would reduce the annual average budget needed to TZS 80 billion.

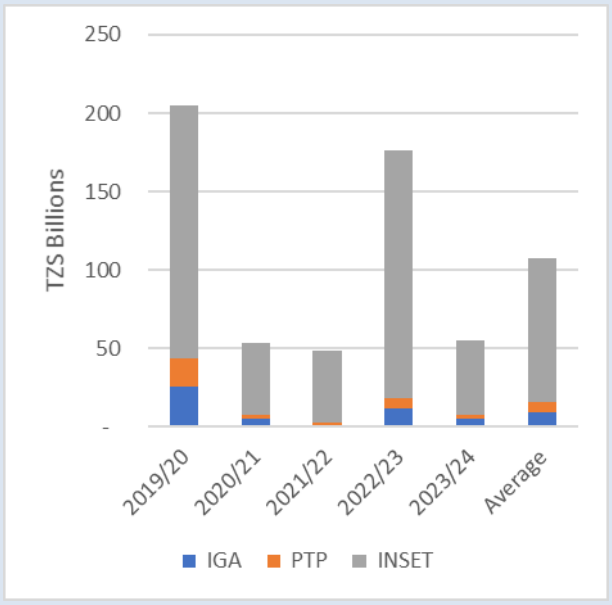
**Figure 30. All three maximum scenario: cost of replicating and scaling-up**



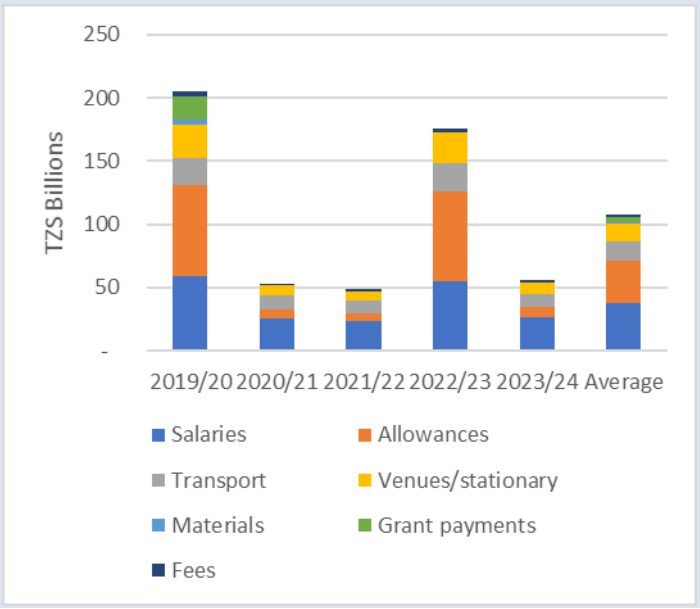

EQUIP-T used lower rates for training allowances than the government uses. Changing the costs to use EQUIP-T rates for all training activities, in the maximum scenario, would reduce the average annual cost from TZS 115 billion to TZS 108 billion, as shown in Figure 31.

**Figure 31. All three maximum scenario: with EQUIP-T rates**

**A. By activity:**



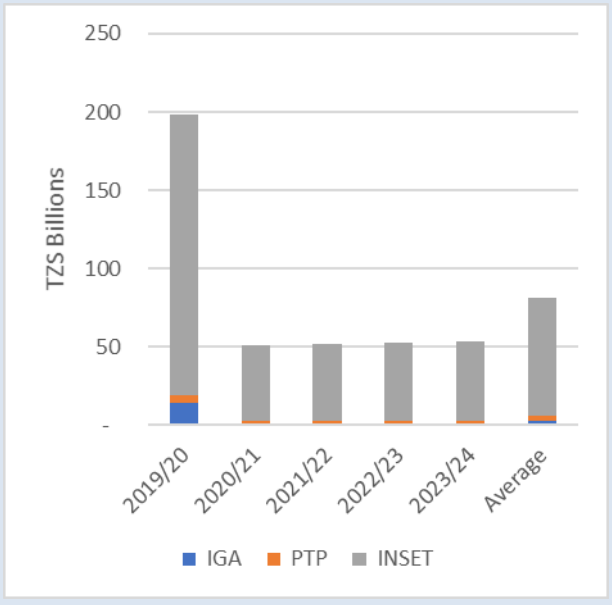

**B. By classification:**



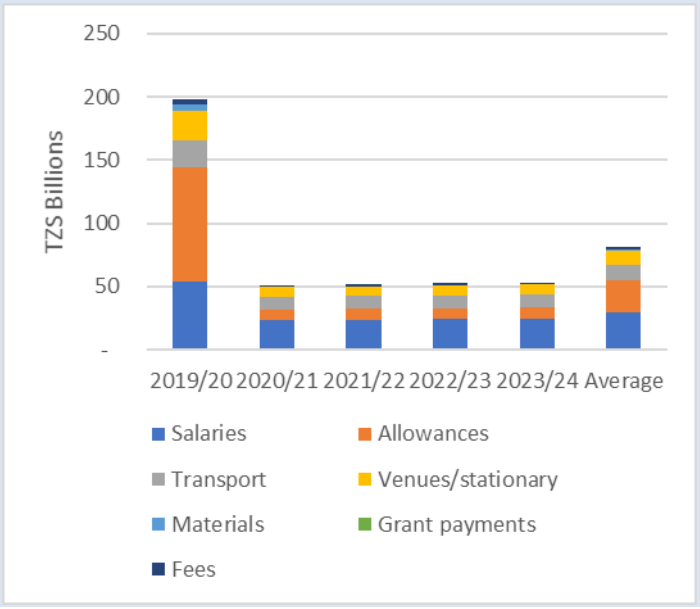

The minimum scenario for all three activities has a much-reduced average annual cost, as shown in Figure 32. Here the average cost over the five years is TZS 81 billion, compared with TZS 118 billion in the maximum scenario. As seen above, grants do not make up a large share of the overall cost in the maximum scenario, so in fact the reduction in the minimum scenario is driven more by reducing the refresher training, particularly for INSET. In the minimum scenario, the average annual cost of salaries is TZS 30 billion, making the average annual budget cost just over TZS 51 billion.

**Figure 32. All three minimum scenario: cost of replicating and scaling-up**

**A. By activity:**




**B. By classification:**



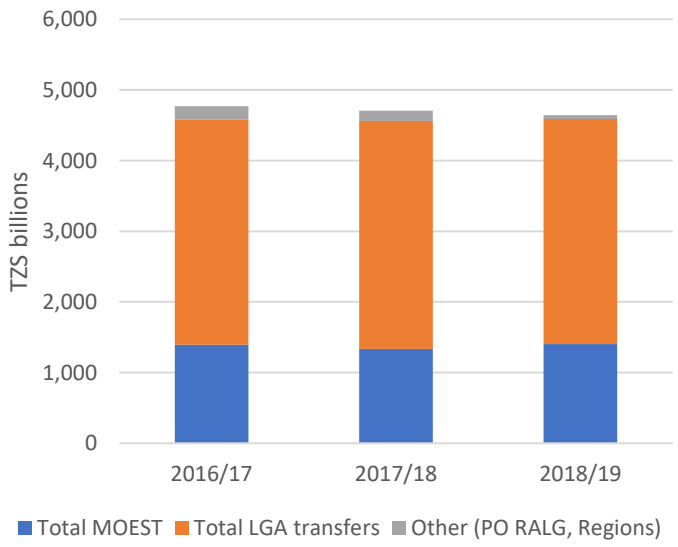
# 5 Affordability

The government has the intention to replicate and scale up six of EQUIP-T's elements. The analysis in Chapter 4 presented the costs of replicating and scaling-up three EQUIP-T activities so that they are implemented in all 26 regions of Tanzania, over five years. Costs alone, however, do not tell us whether this is affordable for the government. In order to consider affordability, these costs need to be put into perspective against current government budgets for education. This chapter begins by looking at the existing budget for education, and then sets the EQUIP-T activity costs against those to assess affordability. The existing government budget data draws heavily on work conducted for the FRA by KPMG in 2019.

## 5.1 Existing government budget

Figure 33 shows the total education sector budget for the three years 2016/17, 2017/18, and 2018/19, and this includes the recurrent, development, and foreign development budgets (which are recorded on budget). The total budget to the sector reduced over this time from TZS 4,770 billion in 2016/17 down to TZS 4,642 in 2018/19. This represents a 3% reduction over two years in nominal terms, but a 6% reduction in real terms; as a share of total government expenditure, education has fallen from 26% to 21%. Of the total budget, approximately 30% goes to MoEST (including TIE, a parastatal which pays for educational materials such as textbooks), almost 70% to LGAs, and between 1 to 4% to 'other' (which includes PO-RALG, regional administrations, and the Teachers Services Commission).

**Figure 33. Education sector budget, 2016/17–2018/19**

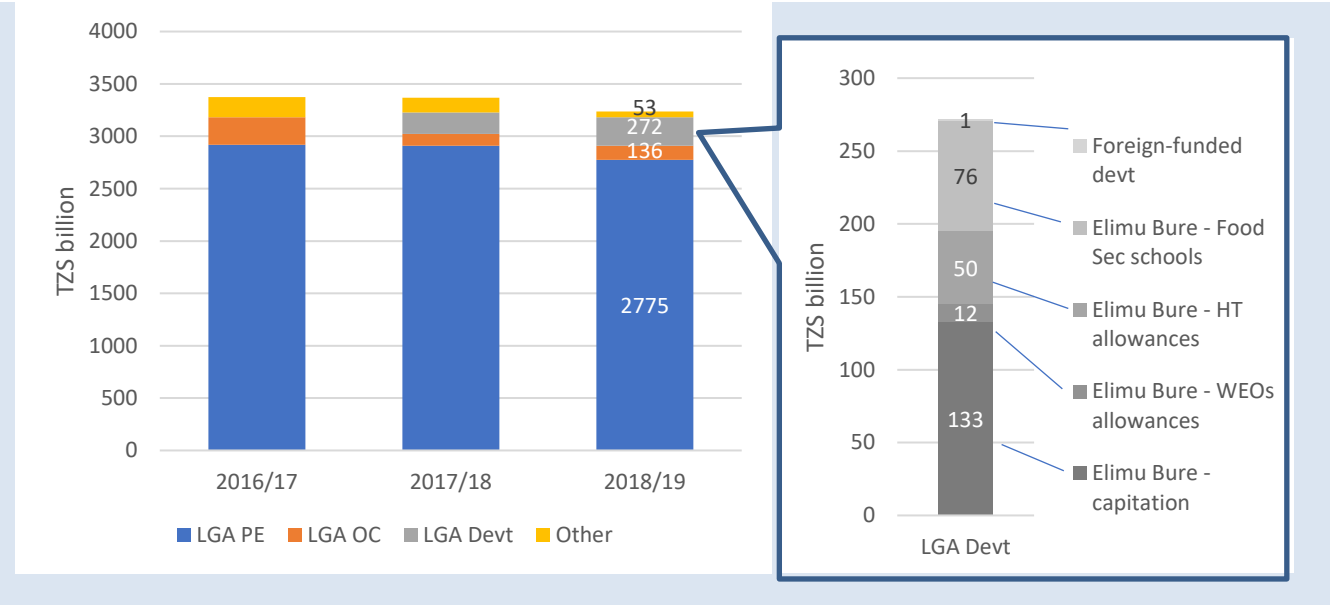



Source: KPMG (2019).
Their sources: 2014/15 Citizen's Budget and Government of Tanzania Budget Books; 2015/16–2017/18 MoFP education sector budget frames; 2018/19 derived for the FRA from Government of Tanzania Budget Books and MoFP data, and total sector budget per CB 2018/19; 2019/20 from 2019/20 Budget Guidelines (December 2018).

For the three EQUIP-T activities being considered, most of the costs would take place at the LGA level because they relate to teachers and LGA officers attending training sessions. Some activities and costs would take place at higher levels: regions and central ministries, which would include the printing and distribution of materials, and payment for regional-level training. All these costs fall under PO-RALG – the central ministry, and regional and local governments. A very small portion might be paid for by MoEST – some officers' time and potentially payment for printing the INSET modules by TIE –

but as seen in the INSET costs above, this is a very small cost in the overall scale. Thus, it is sensible to focus on the budgets of LGAs and 'other'. These are shown in more detail below.

**Figure 34. Regional and local government education budgets, 2016/17–2018/19**




Source: KPMG (2019). Abbreviations: PE = personal emoluments, OC = other charges, Devt = development, HT = head teacher, WEO = ward education officer. The breakdown of the 2017/18 development budget for 2017/18 is not provided in KPMG (2019).

Personal emoluments (salaries) made up 79–87% of the total budget to regional and local government for education in the three years shown. The budget for recurrent 'other charges' at LGA level was TZS 116 billion in 2017/18 and TZS 136 billion in 2018/19 (in 2016/17, it is not clear if the OC budget includes the development budget). The development budget was TZS 202 billion in 2017/18 and TZS 272 billion in 2018/19. The panel on the right in Figure 34 above shows how the development budget 2018/19 breaks down further. It is almost all locally funded (foreign funds were 0.4% of development), and this all goes to *elimu bure* (the government's payments to schools to enable education to be provided to students without charging them fees). Around half goes to capitation payments, one quarter to WEO and head teacher allowances, and a quarter to food for secondary schools. Within capitation grants, almost half is budgeted for primary school transfers, with the rest shared amongst primary special schools, secondary transfers, and secondary fee subsidies (KPMG, 2019, p. 103).

This breakdown makes it clear that LGAs do not receive a discretionary development budget for education; they receive only salaries and 'other charges', which is largely absorbed by teachers' allowances (for moving between schools or taking leave). LGAs supplement the OC budget from national government with their own sources – to cover the costs of examinations, office running costs, and employees' benefits (such as funerals). The amount of LGA own source revenue allocated to education is not captured and reported anywhere (see KPMG 2019), and interviews with LGA officers for this evaluation's qualitative study suggest that own source revenues tend to be low and only used for these 'essential' expenses. Furthermore, LGAs report that own source revenues have been squeezed by changes in government policy relating to local property taxes and agricultural levies.

## 5.2 EQUIP-T activity costs in context

The total salary cost of the three EQUIP-T activities under consideration for replication and scale-up is TZS 38 billion in the maximum scenario, compared with a total LGA personal emolument annual budget of TZS 2,871 billion (this is the 2018/19 budget inflated to 2019/20 prices). Thus, the salary

cost is approximately 1% of the total PE budget (see Table 7); given that it is likely many of these activities can be absorbed within current staffing, this is a manageable issue for the salary budget.

### Table 7. Scale-up scenario costs compared with LGA budgets

| | Budget | Maximum average annual | | Minimum average annual | |
|---|---|---|---|---|---|
| | LGA total* (TZS bn) | TZS bn | % of total | TZS bn | % of total |
| PE / Salary budget | 2,871.2 | 38 | 1% | 30 | 1% |
| Non-salary | 422.1 | 80 | 19% | 51 | 12% |
| *of which development* | *281.4* | *80* | *28%* | *51* | *18%* |
| Total | 3,293.3 | 118 | 4% | 81 | 2% |

* Note: LGA total budget is the 2018/19 budget inflated to 2019/20 prices

The rest of the cost of replicating and scaling-up activities is more challenging, however. In the maximum scenario, the non-salary costs (so all costs in the annual average, except the salaries) of these activities represent 19% of total LGA non-salary budget, and in the minimum scenario, 12%.

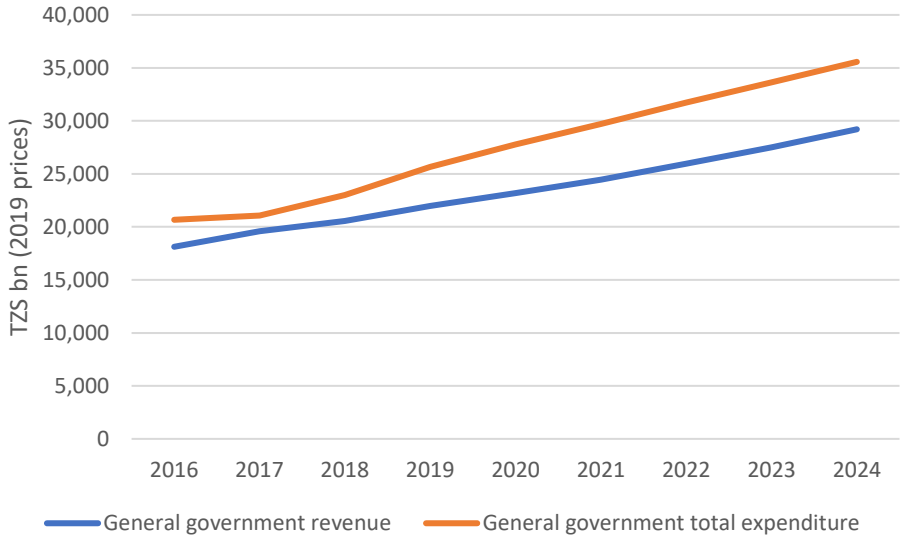
LGAs have very little room for discretion in spending their non-salary budgets. As discussed, the development budget is automatically allocated and directly transferred for *elimu bure* payments by MoFP to schools. The OC budget is usually absorbed by teachers' allowances and employee benefits. LGAs generally report that they do not have the funds to carry out routine monitoring, so it is unrealistic to expect them to organise and pay for training courses. Whilst most EQUIP-T LGAs have made provisions for some continuation of some EQUIP-T activities in 2019/20, it is not possible that LGAs would be able to make room to fund these activities fully within the status quo budget they receive.

This leaves the question of whether the government might increase the allocation to the education sector to cover these costs. In the current context, this does not look promising. General government revenue, and budget, is forecasted to increase in real terms in the coming five years, as given in International Monetary Fund data in Figure 35 below. This makes it plausible that some additional budget could be allocated to the education sector. In 2018/19, the education sector budget was 21% of the total government budget; if the sector continued to receive this share, this could mean a real increase in resources to the sector of over 50% by 2024/25.

However, as seen above in Figure 33, the education budget has been falling in nominal and real terms in recent years, which suggests that other sectors or commitments are currently a higher priority for the government. Furthermore, there will be an increase in costs in the education sector just to maintain current standards: increasing enrolment requiring more teachers, more *elimu bure* payments, more infrastructure. In addition, in interviews for the qualitative study, LGAs report that their total own source revenue budget is being hit by changes made by national government to local business taxes,[47] which means LGAs receive less. Thus, if LGAs' discretionary own source revenue is reducing, it is unlikely that education will receive an increase from the LGA budget.

[47] There are two changes this may relate to. First, property tax used to be collected by LGAs but since October 2018 is now being collected by the central government through the Tanzania Revenue Authority. Second, the central government has abolished and/or reduced tax rates and levies for agricultural produce, collected by LGAs.

**Figure 35. Estimated government revenue and expenditure, 2016–2024**




Source: International Monetary Fund World Economic Outlook Indicators

Based on recent trends, it does not appear likely that the education sector will receive substantial additional budget, even if the government as a whole has more fiscal room. The education sector needs to understand what the current government priorities are and why – for example, which sectors are receiving increasing budgets, and what the government's rationale is for this. Following this, how can the case for more spending on education be made in line with those priorities? For example, if the government is focused on increasing productivity, the case could be made for how education interventions provide an economic return. This also requires the education sector to prioritise which (new) interventions are shown by evidence to have a productive impact. Evidence can be drawn from sources, including this impact evaluation and international literature if studies from Tanzania are not available. This is an activity for MoEST and PO-RALG but also for education stakeholders who wish to support these ministries in advocating for a proportionally greater allocation from the national budget.

# 6 Conclusions and recommendations

## 6.1 Introduction

This study, as part of the endline evaluation of EQUIP-T, has sought to answer two overarching research questions:

**1: How efficiently has EQUIP-T been implemented, considering its intended outputs? What lessons can be learned?**

**2: Is replicating and scaling-up elements of EQUIP-T affordable for the Government of Tanzania?**

The study has employed two methodologies. The first question was answered by using data from the EQUIP-T MA on spending, budgets, and monitoring data, as well as by reviewing EQUIP-T MA programme documents. The second question was answered by developing a bottom-up costing model, with the costs and units built on assumptions which draw on EQUIP-T documents and interviews with MA staff and government officers at various levels of implementation. The final step, affordability, drew on education budget data available in existing reports.

The rest of this chapter concludes the key findings related to these two research questions, and is followed by recommendations for government (focusing on MoEST and PO-RALG) and DFID.

## 6.2 How efficiently has EQUIP-T been implemented, considering its intended outputs? What lessons can be learned?

Analysis of budget execution rates gives an indication of implementation efficiency because it shows how successfully a programme was able to plan its activities and costs, and then implement these according to that plan. Where there were over- or under-spends, the analysis would look at the reasons why. The efficiency of EQUIP-T's budget execution is difficult to assess meaningfully given the limitations in the programme's budget and expenditure data. For example, budgets are largely not held using the same level of geographic or activity disaggregation as the expenditure data. To assess the efficiency of fund management, it would be reasonable to report annual (or some medium-term period) budgets, spending, and the reasons for deviations. Budget variance may be a positive thing (where funds are re-directed towards activities with greater likelihood of success), but it should be reported and explained. DFID agreed the original budget and extension budget, and the broad tranche budgets, but the documentation in more recent programme annual reports suggests that only a limited annual review of the entire programme budget and execution (with no disaggregation) has been carried out. The data and reporting limitations are themselves indicators of weaknesses in the programme's management, as the MA could have had a more thorough and better aligned approach for budgeting and expenditure tracking, which in turn would feed into decision making about subsequent tranches. As a recent FRA concluded, financial reporting 'needs to be much improved' (KPMG, 2019, p. 16).

The programme as a whole cost over £72 million to deliver from its start in February 2014 to June 2019, and there were still six months of the programme to be completed at that point. More than one quarter of this spending was TA and expenses, leaving three quarters as PSA spending at MA and LGA level.

Inconsistent levels of expenditure at the level of LGAs appears to relate to delays in transfers – an issue at the level of central government – and implementation capacity problems at the LGA level, as well as possibly changes from initial plans set by the MA and withheld disbursements due to previous spending issues. Delays in tranche transfers and LGA activities also had a knock-on effect on MA PSA spending. Taken together, the planned budgets appear to have been overly optimistic, and demonstrate the challenge of budgeting in this operating environment.

Cost-efficiency analysis of LGA expenditure reveals some substantial variation in unit costs across regions. This evaluation understands that all LGAs should have implemented the same activities, using the same budgeting formulae. Thus, the variation in unit costs could relate to a number of underlying factors which will vary between LGAs and regions: varying levels of capacity to implement the volume of activities in LGAs; failure to implement according to guidelines; legitimately using varied models with differing costs; withheld funds due to unresolved misspending; or errors in the LGA spending data provided by the MA. The difficulty for this evaluation in obtaining a comprehensive and reliable LGA expenditure dataset suggests that expenditure tracking has not been routinely quality-assured, and may still be subject to errors. More routine and regular monitoring of this sort – using average unit costs to verify expenditure data and beneficiary data – is important for programmes to understand what is going on and to correct course if needed.

There are a number of other lessons learned with regard to the management of EQUIP-T funds and thus the ability to conduct this analysis. The limitations in the budget structure, without consistent codes mappable to sub-components and given the lack of category for region, is another problem. Further, the change in the budgeting and disbursement approach for the LGAs was not well documented or justified at the time, from what this evaluation has seen. These issues together create a challenge for accountability and transparency, and are reflected in the programme being rated as a 'substantial risk' in the recent FRA (KPMG, 2019). Finally, the lack of comprehensive and reliable data on the number of beneficiaries[48] creates a challenge for conducting cost-efficiency or cost-effectiveness value for money analysis, as well as limiting how the programme can track, learn from, and communicate its progress.

## 6.3 Is replicating and/or scaling-up elements of EQUIP-T affordable for the Government of Tanzania?

PO-RALG has expressed its interest to replicate and scale up six elements of EQUIP-T. This study has estimated the costs of replicating and scaling-up three of these activities, such that they would be active in all 26 regions of Tanzania. The three activities are teacher INSET, PTPs, and IGA.[49]

Based on a maximum scenario, across a five-year period, these three activities would have an average annual cost of TZS 118 billion. The INSET makes the most substantial contribution to this, at over 85% of the total cost, and PTP and IGA together make up just 15%. Allowances contribute a substantial part of the annual cost at TZS 42 billion, whilst reducing allowances to the rates used by EQUIP-T, rather than government rates, would cut TZS 7 billion from the annual cost. The second largest cost is salaries for the time of government officials preparing and attending the activities (TZS 38 billion). If the government is able to absorb this cost within existing workloads and salaries, only TZS 80 billion annually must be factored into a new budget.

[48] OPM is not aware of any routine verification processes or data quality standards applied to the beneficiary data collected by the programme.

[49] The government may wish to scale up other EQUIP-T activities as well as these, and some activities may have little cost.

If the government were to implement a minimum scenario – without refresher training and without grants – this would reduce the average annual cost for the five-year period to TZS 81 billion. In this scenario, after an initial effort to roll out interventions to new regions, the ongoing costs relate to holding school- and ward/cluster-level INSET meetings, and holding parent meetings. If the salary cost of attending these events is considered part of the existing workload, the ongoing annual cost of these activities is less than TZS 51 billion.

Considering the context of existing education budgets, the non-salary activities in the maximum scenario represent 19% of total LGA non-salary budget, and in the minimum scenario, 12%. With little room for discretion in their non-salary budgets, it is extremely unlikely that LGAs would be able to afford to implement these activities with their existing resource envelope. The outlook for increasing the resources available to education is mixed. The overall government budget is projected to grow in real terms, and if the education sector continues to receive a fixed share of this, it means a substantial real growth in budget. However, there will be other demands on this budget within the sector – more teachers and infrastructure, in particular – and the demands from other sectors are acute. In recent years, the education sector budget has been reduced in real terms, indicating that other sectors are a higher priority for this government. Most LGAs have made some provision for EQUIP-T activities in their 2019/20 budgets from own source revenues; however, these revenues have been squeezed by changes to local taxes and levies and are not considered guaranteed in future. Considerable effort will be required for the education sector to successfully secure an increase in budget for these activities. In order to do this, the ministries responsible for education need to use and present the evidence on why these activities are important and worthwhile for government investment, to appeal to the rationale and priorities of decision makers in MoFP, the Cabinet, and Parliament.

## 6.4 Recommendations

### 6.4.1 Recommendations for the Government of Tanzania

Recent trends in the education sector budget suggest that paying for the three activities studied here – teacher INSET, PTPs, and IGA – will not be affordable for the LGAs without additional financial support. The central government should take two actions if it wishes to continue with replicating and scaling-up these activities across the country.

1. First, it must recognise the cost burden and provide sufficient budget for these activities, whether that budget is held and spent at national, regional, LGA, or school level. It is unrealistic to expect LGAs and schools to implement these activities if no provision is made for the costs.
2. Second, MoEST and PO-RALG should strengthen the case for additional spending in the education sector, to put to MoFP and Parliament. This requires reviewing and assessing the evidence, and communicating this evidence to MoFP, the Cabinet, and parliamentarians, who each have a role in approving the final budget.

### 6.4.2 Recommendations for DFID

The analysis for this study, particularly of EQUIP-T data, has revealed a number of areas of management which should be strengthened in the future. This is important for the efficient management of such a large programme, in which data needs to be well kept and recorded in order for the implementer to track progress, make informed decisions about programme adjustments, and be held accountable to the funder, on behalf of UK taxpayers.

1. It is a weakness in oversight arrangements that the MA was not required to report expenditure against a medium-term (such as annual, or tranche) budget at a meaningful level of detail. Other

than the high-level split between MA funds and decentralised funds, the detailed budgets which do exist appear to be internal tools, with DFID not requiring a regular report on spending against these detailed budget categories. For future programmes, this evaluation recommends that DFID should have closer sight in agreeing and monitoring progress against medium-term budgets, component level budgets, and cumulative spend at a more granular level. There should always be room for iteration as the context and programme change, but there should be a review of the previous period's performance against agreed budgets to guide these iterations and discuss course-correction.

2. There are a number of ways in which the financial system for EQUIP-T could have been set up to aid monitoring and accountability, and the assessment of value for money, and this should be borne in mind for future programmes. An assessment of data accuracy should be built into the programme.
    a. The activity coding structure should strictly relate to sub-component categories. With EQUIP-T, there are challenges because some LGA Epicor codes cut across sub-components. In addition, the initial MA PSA codes were incredibly broad, and sub-codes were ambiguous, making it hard to track the actual spend on various activities.
    b. There needs to be a level of classification in financial data which relates to whether the activity was an overhead/development cost, or an implementation cost. This would later allow the costs to be more closely analysed in terms of unit costs per beneficiary, and the variable costs for continuing to roll out activities.
    c. The category for implementation costs should further be coded by which region it related to, or whether it is across all regions.
3. Monitoring data should be more comprehensive and more regularly updated, and should ideally track actual beneficiaries. It should be possible to show data by LGA rather than just by region. This data should be held in one system rather than across multiple documents. As with the financial data, the monitoring data should be subject to some form of systematic verification.

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# Annex A Methodology

## A.1 EQUIP-T expenditure

### A.1.1 MA PSA expenditure

MA PSA expenditure was provided for the period from February 2014 up to and including June 2019. This spending is broken down by output codes. In 2017, the coding structure changed to reflect the activities in the extension period.

Annex Table 1 below shows the total spending by output code, and how the codes were grouped according to the ten sub-components of EQUIP-T.

**Annex Table 1. MA PSA spending by output code and allocated to sub-components**

| MA PSA component | MA PSA output code | Sub-comp.[1] | Total GBP |
|---|---|---|---|
| PSA Inception | PSA inception | N/A | 7,349 |
| 1 Improving the Performance of Teachers | 1.1 Developing a Teacher Performance Framework | 1A | 58,437 |
| | 1.2 Improving the Performance of Teachers | 1A | 4,842,216 |
| | 1.3 Developing a Teacher Performance Management System | 1A | 2,986 |
| | 1.4 Improving Teacher Morale | 1A | 240,171 |
| | 1.5 School Readiness Programme | 1B | 1,338,472 |
| | 1.a.1 Early Grade Literacy INSET | 1A | 384,440 |
| | 1.a.2 Early Grade Numeracy INSET | 1A | 571,807 |
| | 1.a.2 Early Grade Literacy INSET[2] | 1A | 30,824 |
| | 1.a.3 Teacher Training Videos | 1A | 158,962 |
| | 1.a.4 Strengthening Communities of Learning and General Pedagogy | 1A | 165,719 |
| | 1.a.5 Strengthening Teacher Development | 1A | 7,930 |
| | 1.b.1 SRP in programme regions | 1B | 417,160 |
| | 1.b.2 Development of Satellite Schools (non-construction elements) | 1B | 49,844 |
| | 1.b.3 SRP and Satellite School related advocacy and support to pre-primary | 1B | -16,473 |
| | 1.c.1 Construction of satellite schools | 1C | 105,257 |
| | 1.c.2 Roofing of existing classrooms | 1C | - |
| | 1.c.3 National school construction guidelines | 1C | 892 |
| | **Total component 1** | | **8,358,643** |
| 2 Strengthening School Leadership and Management | 2.1 Developing a School Quality Framework and Leadership Performance Framework | 2A | 170,038 |
| | 2.2 Design and Implementation of Head Teacher Performance Management System | 2B | 476,663 |
| | 2.3 Strengthening Head Teacher and WEC School Leadership and Management | 2A | 1,304,951 |
| | 2.4 Peer support for Whole School Development | 2A | 14,387 |

| | | | |
|---|---|---|---|
| | 2.a.1 Embedding inclusive school development planning | 2A | 70,117 |
| | 2.a.2 Developing School Leadership Communities of learning - | 2A | 52,771 |
| | 2.b.1 School Information System - phase 2 and institutional strengthening | 2B | 175,399 |
| | 2.b.2 School Information System - capacity building and supporting use | 2B | 804,230 |
| | **Total component 2** | | **3,068,556** |
| 3 District Planning and Management | 3.1 EQUIP set up, Baseline and Programming | 3A | 59,736 |
| | 3.2 Strengthening District Planning and Management Capacity | 3A | 394,826 |
| | 3.3 Support Districts to prepare to management EQUIP programmes from 2016 and plan for replication and scale-up | 3A | 3,087 |
| | 3.4 Support Districts to manage, co-ordinate and monitor special activities/ grants | 3B | 1,890,941 |
| | 3.a.1 LGA Capacity Building | 3A | 156,839 |
| | 3.a.2 District Education Management meetings (DEMs) | 3A | 115,690 |
| | 3.a.3 Professionalisation of WEC | 3A | 262,538 |
| | 3.b.1 LGA grant monitoring - monthly/quarterly | 3B | 157,411 |
| | 3.b.2 Support to LGA budgeting and planning | 3B | 144,368 |
| | 3.b.3 Support to LGA public financial management | 3B | 15,986 |
| | **Total component 3** | | **3,201,422** |
| 4 Strengthened Community Participation & Demand for Better Accountability in Education | 4.1 Establish relationships with CSO partners (HakiElimu, Twaweza/ UWEZO etc.) | 4A | 80,209 |
| | 4.2 Conduct Community Level Consultations, Introduction of EQUIP-T programme | 4A | 81,139 |
| | 4.3 Core Activity 1: Improve communications mechanism for communities | 4A | 182,281 |
| | 4.4 Core Activity 2: Community engagement to education planning | 4A | 549,380 |
| | 4.5 Core Activity 3: Build capacity of WECs to train SCs/ build capacity for effective operations of the school committee | 4A | 197,193 |
| | 4.6 Support to link community education plan objectives into School Development Plan (collaboration with Leadership Unit) | 4A | 131 |
| | 4.7 Core Activity 4: PTA formation | 4A | 3,023 |
| | 4.8 Core Activity 5: Development of School IGA | 4A | 47,345 |
| | 4.9 Support PTA to establish school clubs/ student parliaments/ interest groups | 4B | 29,637 |
| | 4.10 Further develop Transparency, Accountability and representation mechanisms and projects | 4A | - |
| | 4.11 Continue advocacy and communication campaigns | 4A | - |
| | 4.12 Roll-out community score cards in line with Core activity 1 and in collaboration with Planning, Leadership and Equity Units. | 4A | - |
| | 4.13 Continue capacity building programmes and maintenance (sharing, exchange visits, refresher training, etc.) | 4A | - |
| | 4.a.1 Community Education Needs Assessment | 4A | 29,127 |
| | 4.a.2 Income Generation Activities | 4A | 41,238 |

| | | | |
|---|---|---|---|
| | 4.a.3 Community Based Performance Monitoring | 4A | 221,571 |
| | 4.a.4 PTP and SC effectiveness | 4A | 62,180 |
| | 4.b.1 Inclusive teaching and management practices | 4B | 37,165 |
| | 4.b.2 School Clubs | 4B | 36,026 |
| | 4.b.3 Girls' education and transition to secondary | 4B | 52,019 |
| | 4.b.4 Supporting more conducive learning environments for marginalised and disabled children | 4B | 13,629 |
| | **Total component 4** | | **1,663,292** |
| 5 Strengthened Learning & Dissemination of Results | 5.1 EMIS | 5 | 1,841,121 |
| | EMIS Contigency money 14C10-115 | 5 | 193 |
| | 5.2 Programme Monitoring & Evaluation | 5 | 857,876 |
| | 5.3 Programme Communications | 5 | 139,143 |
| | 5.4 Evaluation Auditing | 5 | 45,182 |
| | 5.2 staff capacity strengthened to provide both real time and periodic system information | 5 | - |
| | 5.a.1 Annual Monitoring Survey | 5 | 454,988 |
| | 5.a.2 In-depth research of specific interventions | 5 | 17,192 |
| | 5.a.3 Routine programme monitoring and support for LGA monitoring | 5 | 31,662 |
| | 5.b.1 Programme Communications | 5 | 298,380 |
| | **Total component 5** | | **3,685,738** |
| Total | | | 19,984,999 |

[1]OPM categorised output codes against sub-components based on authors' understanding of the programme. [2]It is not clear why there are two lines with the same code.

### A.1.2 LGA PSA expenditure

LGA PSA expenditure was provided in TZS, broken down by LGA, Epicor code and by quarter, from Q9 (January to March 2016) to Q22 (April to June 2019). Spending in each quarter was converted into GBP (in order to present in the currency used by DFID, and to combine with MA PSA data) using the exchange rate at the last day of that quarter, taken from . The 13 codes were categorised against the components and sub-components as follows in Annex Table 2.

**Annex Table 2. LGA budget Epicor codes by component and sub-component**

| Epicor code | Activities | Component[1] | Sub-Component[1] |
|---|---|---|---|
| | **List of activities before extension** | | |
| C04C01 | 3Rs (KKK) INSET | 1 | 1A |
| C04C02 | Community and school partnerships | 4 | 4A and 4B |
| C04C03 | Education grant management and planning | 3 | 3A |
| C04C04 | INSET contracting of teacher training colleges | 1 | 1A |
| C04C05 | INSET general | 1 | 1A and 1B |
| C04C06 | LGA education planning and management | 3 | 3A |
| C04C07 | PTP grants | 4 | 4A and 4B |
| C04C08 | School IGAs | 4 | 4A |

| | | | |
|---|---|---|---|
| C04C09 | School leadership and management | 2 | 2A |
| C04C10 | WEC grants | 3 | 3A |
| | **List of activities following extension** | | |
| C04C11 | LGA Monitoring | 3 | 3A and 5 |
| C04C12 | Girls Education and Social Inclusion activities | 4 | 4B |
| C04C13 | School Infrastructures | 1 | 1C |

[1]OPM categorised Epicor codes against sub-components based on authors' understanding of the programme.

Some codes fall across multiple sub-components and even components. For example C04C02 was used to train school committees on activities under 4A and 4B, and similarly the PTP grants (C04C07) fell under both 4A (grant 1) and 4B (grant 2). On the whole all codes fall under only one component, except C04C11, LGA monitoring. This was used both for monitoring visits to schools (component 3) but also for learning and stories of change activities which come under component 5. In this report it has been categorised under component 3.

## A.2 EQUIP-T budget and expenditure data

Budget execution analysis requires budgets and expenditure data for a corresponding period of implementation, with common levels of categorisation or disaggregation to make the two datasets comparable. The tables below set out what type of budget and expenditure data was available to the evaluation team for this study. OPM requested to see any additional relevant budget and expenditure data from the MA so concludes that the documents reviewed are cover all the relevant existing documentation.

Annex Table 3 sets out the budget and expenditure data for MA PSA funds. The expenditure data is relatively granular and thus other sources of expenditure data (such as the annual reports) have not been reviewed here. Four sources of budget data are included here. Budget 1 shows that for the first years of the programme, the annual reports contained annual budgets. From the programme extension onwards, there was a very detailed budget for the full extension period (Budget 2), and a monthly forecast which was updated on a rolling basis (Budget 4). For the entire programme lifetime, the budget is available only at the level of components (Budget 3). This means budget execution is only possible for the first three years of the programme[50], and for the programme's lifetime, at the component level. This is further summarised in Annex Table 5.

Annex Table 4 sets out the budget and expenditure data available for LGA PSA funds. Here, the challenge is a mismatch between budget format and expenditure tracking format. The expenditure data is reported by LGA and Epicor code, however the budgets were created categorised by Components, sub-component or output codes, and at the regional or higher level. Thus it is not possible to assess budget execution for most of the period of implementation. The exception is for two years in which annual budgets were created (Budget 1). Annex Table 6 summarises what budget execution analysis can be conducted for LGA PSA data.

[50] In fact a budget is available for 2017 but as this was likely edited mid-way through 2017 for the extension, 2017 budget execution has not been analysed.

## Annex Table 3. Budget and expenditure data for MA PSA

| | Budget 1 - Reports | | | Budget 2 - Extension | | | Budget 3 - Contract | | | Budget 4 - Rolling | | | Expenditure | | | Implication for budget execution | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Year** | Period | Detail | Source | Period | Detail | Source | Period | Detail | Source | Period | Detail | Source | Period | Detail | Source | | |
| **2014** | Annual, 2014-2017 | Comp | Annual Reports, 2014, 2015, 2016 | | | | Total, 2014-19 | Comp | Various internal e.g. "Contract Amendment 4-Expenses PSA" | | | | Monthly | Comp, Sub-C, Output | MA PSA Expen-diture tracker | Annual by component, 2014-2016 | Lifetime by Comp |
| **2015** | | | | | | | | | | | | | | | | | |
| **2016** | | | | | | | | | | | | | | | | | |
| **2017** | | | | Total, Aug 2017-Dec 2019 | Comp, Sub-C, Output, activity | Extension workplan 2017-19 | | | | Rolling monthly forecast | Comp, Sub-C, Output, activity | Internal monthly forecast* | | | | Total for Aug 2017 - Dec 2019, by Comp, Sub-C, Output | |
| **2018** | | | | | | | | | | | | | | | | | |
| **2019** | | | | | | | | | | | | | | | | | |

Comp = Component. Sub-C = Sub-component. *seen for Mar-Dec 2019

## Annex Table 4. Budget and expenditure data for LGA PSA

| | Budget 1 – Annual budgets | | | | Budget 2 - Extension | | | | Budget 3 – Tranche* | | | | Expenditure | | | | Implication for budget execution |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Year** | Period | Detail | Cover age | Source | Period | Detail | Covera ge | Source | Period | Detail | Coverage | Source | Period | Detail | Covera ge | Source | |
| **2015** | 2015/16 annual | Epicor code | LGA level | Excel budgets | | | | | | | | | Quarte rly, 2015-2019 | Epicor code | LGA level | LGA expend iture tracker | 2015/16 by LGA and Epicor code |
| **2016** | | | | | | | | | | | | | | | | | |
| **2017** | | | | | Tranch es 5-8, Nov 2017-Oct 2019 | Comp, Sub-C, Output, activity | Total aggreg ated | Workpla n and budget decentra lised funds 2017-19 | | | | | | | | | |
| **2018** | 2018/19 annual | Epicor code | LGA level | Excel budgets | | | | | Tranche 6, June-Sept 2018 | Output and Activity mix | Region level | Tranche 6 fund requirements | | | | | 2018/19 by LGA and Epicor code |
| **2019** | | | | | | | | | | | | | | | | | |

*Tranche fund requirements may be available for all eight tranches in the same format.

### Annex Table 5. MA PSA Budget Execution data availability

| Data available? | Budget | Expenditure | Budget execution |
|---|---|---|---|
| By year? | Only 2014-2017, followed by rolling monthly | Yes, by month | By component for 2014-16 |
| Cumulative total for lifetime? | Yes | Yes | By component for cumulative lifetime |
| What detail? | Component, sub-component, output and activity for the rolling-monthly. By component for 2014-17 annual and lifetime | Component, sub-component and output | |

### Annex Table 6. LGA PSA Budget Execution data availability

| Data available? | Budget | Expenditure | Budget execution |
|---|---|---|---|
| By year? | Only 2015/16 and 2018/19 | Yes, by quarter | By LGA and by Epicor code for 2015/16 and 2018/19 |
| Cumulative total for lifetime? | No, only half (tranche 5-8) | Yes | |
| By LGA? | Only for 2015/16 and 2018/19. Tranche 5-8 given for whole programme | Yes | |
| By Epicor code? | Only for 2015/16 and 2018/19. Tranche 5-8 given by Output | Yes | |

## A.3 Estimating replication and scale-up costs

The scale-up and replication costs were estimated by developing a spreadsheet model. The process of developing the assumptions went through a number of stages:

- Review of programme documentation and previous interview notes with EQUIP-T MA technical staff to understand the broad model for the three activities: INSET, PTPs and IGA.
- Initial set of questions to EQUIP-T MA technical staff to confirm the scope of the activities if being continued/rolled out by the government (rather than a donor or MA).
- Detailed interviews with the EQUIP-T MA technical staff to build up all the details of the model (such as how many participants attend training, how many days, how many materials are distributed).
- Collation of procurement costs from EQUIP-T MA for training materials and manuals, fees to lecturers, and distribution costs.
- Detailed interviews with government officers to validate both what implementation had consisted of under EQUIP-T, as well as what would be an appropriate set of assumptions for rolling out by the government. This was carried out over one week of fieldwork based in Dodoma, interviewing MoEST, PO-RALG, Dodoma Regional Administration, two LGAs (Dodoma Urban and Bahi DC) and four schools (two in each LGA). In addition, written responses were sent from TIE.

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This annex sets out the assumptions used in the costing model.

This annex is organised starting with the detailed activity-specific assumptions for PTP, IGA and INSET, followed by general assumptions which apply to unit costs across the activities.

In addition, some assumptions are used for the model for all activities:

- For all the activities, the cost of monitoring has not been included, as it is assumed that this is built into existing monitoring activities of government.
- Materials are assumed to only be distributed in a first rollout of training, which means that refresher training does not include materials. If in fact new materials need to be distributed (to account for wear and tear, loss etc), this would increase the costs.

### A.3.1 Implementation model – IGA

The government has developed a new 'IGA operations manual' to be distributed in addition to the existing materials.

The 'maximum' scenario includes distribution of the IGA grant in 'new regions'. This would be closest to continuing the EQUIP-T model. The minimum scenario does not include a grant so the outputs and outcomes would likely be different.

**Annex Table 7. IGA model assumptions**

| | **Maximum scenario with grants in new regions, and more refresher training** | | **Minimum scenario** | |
|---|---|---|---|---|
| | New regions: rollout | Old regions: replication | New regions: rollout | Old regions: replication |
| Regional level training | 3 day training<br>Per region:<br>- 3 regional participants<br>- 8 LGA participants per LGA<br>- 2 drivers per LGA<br>- 4 facilitators /resource people from Ministries<br>- 4 drivers from Ministries<br>All participants given:<br>- (new) IGA facilitators guide<br>- (new) IGA operations manual guide<br>Training held in year 1 and 4 (refresher), materials only distributed in year 1 | 2 day training<br>Per region:<br>- 3 regional participants<br>- 8 LGA participants per LGA<br>- 2 drivers per LGA<br>- 4 facilitators /resource people from Ministries<br>- 4 drivers from Ministries<br>All participants given new IGA operations manual guide<br>Training held in year 2 and 5 (both are refresher), materials only distributed in year 2. These are later than for new regions because the original training was more recent. | The same as maximum, except only the training in year 1, no refresher. | The same as maximum, except only the training in year 2, no refresher. |
| District level training | 3 day training:<br>- 4 participants per school<br>- All WEOs<br>- 3 LGA facilitators per cluster, assume 8 clusters per LGA.<br>- 1 driver per cluster (to take materials) | 3 day training:<br>- 4 participants per school<br>- All WEOs<br>- 3 LGA facilitators per cluster, assume 8 clusters per LGA.<br>- 1 driver per cluster (to take materials) | The same as maximum, except reduced materials. Only distribute (3 per school, 1 per WEO):<br>- Guidelines<br>- IGA manual | No training, only distribute the 'IGA operations' manual |

| | | | | |
|---|---|---|---|---|
| | Materials (3 per school, 1 per WEO):<br>- Guidelines<br>- IGA manual<br>- IGA operations<br>- Application<br>- Validation and finalisation<br>Training held in year 1 and 4 (refresher), materials only distributed in year 1 | Materials (3 per school, 1 per WEO):<br>- IGA operations<br>Hold in year 2 and repeat in year 5, materials only distributed in year 2. | - IGA operations<br>Training held in year 1 only | |
| Grant process | In year 1 only:<br>- Every teacher spends 1 day total on developing the IGA grant application.<br>- Every school spends TZS 100,000 on stationary.<br>- Every LGA spends total of 16 days (2 days each for 8 officers) reviewing applications.<br>- 50% of schools receive grant of TZS 1.5 million. | Nothing | Nothing | Nothing |

### A.3.2 Implementation model – PTP

The government has revised the 'PTP formation manual' so this needs to be distributed to 'old regions' to replace the earlier version they received.

The 'maximum' scenario includes distribution of the PTP grant (two sets of grant) in 'new regions'. This would be closest to continuing the EQUIP-T model. The minimum scenario does not include a grant so the outputs and outcomes would likely be different.

**Annex Table 8. PTP model assumptions**

| | **Maximum scenario with grants in new regions, and more refresher training** | | **Minimum scenario** | |
|---|---|---|---|---|
| | New regions: rollout | Old regions: replication | New regions: rollout | Old regions: replication |
| Regional level training | 4 day training<br>Per region:<br>- 3 regional participants<br>- 3 LGA participants per LGA<br>- 1 driver per LGA<br>- 4 facilitators /resource people from Ministries<br>- 4 drivers from Ministries<br>All participants given:<br>- PTP formation manuals (revised version)<br>- PTP collaboration training guide<br>- Training manual for PTP grants | 1 day training<br>Per region:<br>- 3 regional participants<br>- 3 LGA participants per LGA<br>- 1 driver per LGA<br>- 4 facilitators /resource people from Ministries<br>- 4 drivers from Ministries<br>All participants given:<br>- PTP formation manuals (revised version)<br>Training held in year 1 and 4, materials only distributed in year 1. | The same as maximum, except reduced materials:<br>- (PTP formation manuals (revised version)<br>- PTP collaboration training guide<br>Training held in year 1 only. | No training, only distribute new PTP formation manuals – 3 per LGA, 3 per region |

| | | | | |
|---|---|---|---|---|
| | - Grant 1 manual<br>- Grant 2 manual<br>Training held in year 1 as above. Refresher training held in year 4 but only 1 day and no new materials. | | | |
| District level training | 2 day training<br>- 1 participant (HT) per school, and all WEOs<br>- 3 LGA facilitators for every 50 schools – approximately 6 per region.<br>Materials: 3 copies per school, 1 per WEO:<br>- PTP formation manuals (revised version)<br>- Grant 1 manual<br>- Grant 2 manual<br>Training held in year 1 as above. Refresher training held in year 4 but only 1 day and no new materials. | 1 day training<br>- 1 participant (HT) per school, and all WEOs<br>- 3 LGA facilitators for every 50 schools – approximately 6 per region.<br>Materials: 3 copies per school, 1 per WEO:<br>- PTP formation manuals (revised version)<br>Training held in year 1 as above. Refresher training held in year 4 but no new materials. | 1 day training<br>- 1 HT per school, and all WEOs<br>- 3 LGA facilitators for every 50 schools.<br>Materials: 3 per school, 1 per WEO:<br>- PTP formation manuals (revised version)<br>Training held in year 1 only. | No training, only distribute new PTP formation manuals: 3 copies per school, 1 per WEO |
| School level: establishes PTPs | All teachers spend 0.5 days per year at parent meetings | All teachers spend 0.5 days per year at parent meetings | Same as maximum | Same as maximum |
| School level: PTP grants | HTs spend 2 days developing grant plans. Schools receive 2x TZS 550,000 (total TZS 1.1m) | Nothing | Nothing | Nothing |

### A.3.3 Implementation model – In-service training

The basic premise is that the 13 modules of literacy, 13 modules of numeracy, and one module each on general effective pedagogy and gender responsive pedagogy would be rolled out to new regions. Ward-cluster reflection meetings continue quarterly in all regions, and school-based meetings take place twice per month for one hour each, for all teachers.

**Annex Table 9. In-service training model assumptions**

| | Maximum scenario | | Minimum scenario | |
|---|---|---|---|---|
| | New regions: rollout | Old regions: replication | New regions: rollout | Old regions: replication |
| Training of teacher training college tutors | Total of 20 days training across four sessions:<br>6 day literacy<br>6 day numeracy<br>4 day gender<br>4 day general<br>For each training<br>- 24 tutors as participants per region | Nothing | Same as maximum | Nothing |

| | | | | |
|---|---|---|---|---|
| | - Resource people: 4 university lecturers.<br>- 2 Ministry officials<br>- 2 Ministry drivers<br>Materials:<br>Copies for every TTC participant of all 28 modules and 28 manuals.<br>Held in year 1 | | | |
| Regional level training | 6 day training (orientation)<br>Per region:<br>- 4 regional participants<br>- 3 LGA participants per LGA<br>- 1 driver per LGA<br>- 2 TTC tutors as facilitators /resource people<br>- 2 Ministry officials<br>- 4 drivers from Ministries<br>Materials:<br>All participants receive copies of all modules and manuals<br>Training held in year 1 and 4, materials only distributed in year 1. | 6 day training<br>Per region:<br>- 4 regional participants<br>- 3 LGA participants per LGA<br>- 1 driver per LGA<br>- 2 TTC tutors as facilitators /resource people<br>- 2 Ministry officials<br>- 4 drivers from Ministries<br>Materials:<br>None<br>Training held in year 1 and 4. | The same as maximum, but training held in year 1 only. | Nothing |
| District level training | Total of 16 days training across four sessions:<br>6 day literacy<br>6 day numeracy<br>2 day gender<br>2 day general<br>Participants:<br>- Each set has 3 participants per school<br>- HTs and WEOs attend 1 day of each set<br>Resource people:<br>- 2 TTC tutors for every 15 schools (which is 45 participants + some HTs and WEOs on day 1).<br>- 2 LGA officers for full duration.<br>Materials, per school:<br>- 3 copies of all the modules<br>- 1 copy of all the manuals<br><br>Training held in year 1 as above. Refresher training held in year 4 but no new materials. | Total of 16 days training across four sessions:<br>6 day literacy<br>6 day numeracy<br>2 day gender<br>2 day general<br>Participants:<br>- Each set has 3 participants per school<br>- HTs and WEOs attend 1 day of each set<br>Resource people:<br>- 2 TTC tutors for every 15 schools (which is 45 participants + some HTs and WEOs on day 1).<br>- 2 LGA officers for full duration.<br>Materials:<br>- None<br><br>Training held in year 1 and 4 as above. | The same as maximum, but training held in year 1 only. | Nothing |

| | | | | |
|---|---|---|---|---|
| Ward-cluster reflection meetings | 1 day per quarter, 3 staff per school.<br>2 TTCs tutors per cluster, 8 clusters per LGA. | Same as new regions | Same | Same |
| School-based learning | 2 x 1 hour sessions = 0.25 days (2 hours) per month for all teachers. Continuous. 10 months of the year (2 months are school holidays)<br>2 days per year per school to prepare/organise.<br>Stationary/snack etc – 2,000 per teacher per session. | Same as new regions | Same | Same |

### A.3.4 Unit costs

Annex Table 6 to 13 show the unit cost for the various items that have been costed in the model. The costs are based on interviews, document review and online research. All costs are presented for 2019/20.

**Annex Table 10. Salaries and fees in TZS**

| | Annual | Monthly | Daily |
|---|---|---|---|
| **Salaries** | | | |
| Driver | 3,600,000 | 300,000 | 13,846 |
| Teacher | 7,800,000 | 650,000 | 30,000 |
| Head teacher | 8,400,000 | 700,000 | 32,308 |
| WEO | 9,600,000 | 800,000 | 36,923 |
| LGA officer | 14,400,000 | 1,200,000 | 55,385 |
| Regional officer | 18,000,000 | 1,500,000 | 69,231 |
| Ministry officer | 24,000,000 | 2,000,000 | 92,308 |
| TTC tutor | 14,400,000 | 1,200,000 | 55,385 |
| | | | |
| **Fees when resource people** | | | |
| TTC tutor | | | 50,000 |
| University lecturer | | | 420,000 |

Source: These unit costs were taken after reviewing broad averages and starting amounts given by government respondents, and a document containing salary scales from July 2014

## Annex Table 11. Allowances in TZS

| | Level of training | | | |
|---|---|---|---|---|
| | Regional | District | Cluster | School |
| Allowances / per diems, per day | | | | |
| Government rates | | | | |
| Participants | 100,000 | 80,000 | 40,000 | - |
| Resource people | 120,000 | 100,000 | 60,000 | - |
| Driver | 80,000 | 60,000 | 50,000 | - |
| EQUIP-T rates | | | | |
| Participants | 80,000 | 65,000 | 25,000 | - |
| Resource people | 120,000 | 65,000 | 45,000 | - |
| Driver | 60,000 | 50,000 | 30,000 | - |
| | | | | |
| Transport allowance, per training | | | | |
| All (Participants and resource people) | 50,000 | 30,000 | | |
| | | | | |
| Transport allowance, per day | | | | |
| All (Participants and resource people) | | | 10,000 | |

Source: EQUIP-T programme documents, interview with EQUIP-T and government officers.

## Annex Table 12. Venue / workshop costs in TZS

| | Level of training | | | |
|---|---|---|---|---|
| | Regional | District | Cluster | School |
| Stationary/printing/snacks | | | | |
| Per participant, per training | 3,000 | 2,000 | | |
| Per participant, per day | 15,000 | 10,000 | | 2,000 |
| Venue cost, per day | 100,000 | | | |
| | | | | |
| Preparation costs - days per training | | | | |
| Ministry officer | 7 | | | |
| Regional officer | 1 | | | |
| LGA officer | | 10 | 5 | |
| Cashier/payment - per training | 200,000 | 200,000 | 200,000 | |

Source: Interview with government officers and teachers.

## Annex Table 13. Material and procurement costs in TZS

| Description | Printing | Procurement | Distribution | Source information | |
|---|---|---|---|---|---|
| | Unit cost 2019 (TZS) | No. days of Ministry official time (once per document) | Cost per region for all materials (TZS) | Unit Cost (TZS) paid by EQUIP | Year of EQUIP purchase |
| IGA | | | | | |
| Guidelines to draft a business plan | 812 | 5 | | 720 | 2016 |

| | | | | | |
|---|---|---|---|---|---|
| IGA manual | 1,122 | 5 | | 995 | 2016 |
| IGA operationalisation | 900 | 5 | | N/A Estimate | |
| Validation and finalisation of business plan | 970 | 5 | | 860 | 2016 |
| Application forms (for IGA grants) | 1,272 | 5 | | 1,128 | 2016 |
| Facilitator guide – IGA | 2,414 | 5 | | 2,140 | 2016 |
| Distribution cost for IGA materials | | | 1,500,000 | 10,500,000 for 7 regions | |
| PTP | | | | | |
| PTP formation manuals (updated) | 6,231 | 5 | | 5,253 | 2015 |
| PTP collaboration training guide | 3,932 | 5 | | 3,800 | 2018 |
| Training manual PTP grant 1 (for LGA officers training WEOs/HTs) | 2,500 | 5 | | Estimate | |
| PTP Grant 1 – grant manual | 3,000 | 5 | | Estimate | |
| PTP Grant 2 - Grant manual-information guidelines for supporting girls education. | 3,000 | 5 | | Estimate | |
| Distribution cost for PTP materials | | | 1,750,000 | 3,500,000 for 2 regions | |
| In-service training | | | | | |
| INSET Literacy 13 Modules | | | | | |
| Literacy Teacher Module 1 | 2,966 | 1.5 | | 2,867 | 2018 |
| Literacy Teacher Module 2 | 2,966 | 1.5 | | 2,867 | 2018 |
| Literacy Teacher Module 3 | 2,966 | 1.5 | | 2,867 | 2018 |
| Literacy Teacher Module 4 | 2,966 | 1.5 | | 2,867 | 2018 |
| Literacy Teacher Module 5 | 2,966 | 1.5 | | 2,867 | 2018 |
| Literacy Teacher Module 6 | 2,966 | 1.5 | | 2,867 | 2018 |
| Literacy Teacher Module 7 | 2,966 | 1.5 | | 2,867 | 2018 |
| Literacy Teacher Module 8 | 2,966 | 1.5 | | 2,867 | 2018 |
| Literacy Teacher Module 9 | 2,966 | 1.5 | | 2,867 | 2018 |
| Literacy Teacher Module 10 | 2,966 | 1.5 | | 2,867 | 2018 |
| Literacy Teacher Module 11 | 2,966 | 1.5 | | 2,867 | 2018 |
| Literacy Teacher Module 12 | 2,966 | 1.5 | | 2,867 | 2018 |
| Literacy Teacher Module 13 | 3,401 | 1.5 | | 2,867 | 2015 |
| Total for all 13 | 38,997 | 19.5 | | | |
| INSET Literacy 13 Manuals | | | | | |
| Literacy Facilitator's guide 1 | 5,032 | 1.5 | | 4,863 | 2018 |
| Literacy Facilitator's guide 2 | 5,032 | 1.5 | | 4,863 | 2018 |
| Literacy Facilitator's guide 3 | 5,032 | 1.5 | | 4,863 | 2018 |
| Literacy Facilitator's guide 4 | 5,032 | 1.5 | | 4,863 | 2018 |
| Literacy Facilitator's guide 5 | 5,032 | 1.5 | | 4,863 | 2018 |
| Literacy Facilitator's guide 6 | 5,032 | 1.5 | | 4,863 | 2018 |
| Literacy Facilitator's guide 7 | 5,032 | 1.5 | | 4,863 | 2018 |

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| | | | | | |
|---|---|---|---|---|---|
| Literacy Facilitator's guide 8 | 5,032 | 1.5 | | 4,863 | 2018 |
| Literacy Facilitator's guide 9 | 5,032 | 1.5 | | 4,863 | 2018 |
| Literacy Facilitator's guide 10 | 5,032 | 1.5 | | 4,863 | 2018 |
| Literacy Facilitator's guide 11 | 5,032 | 1.5 | | 4,863 | 2018 |
| Literacy Facilitator's guide 12 | 5,032 | 1.5 | | 4,863 | 2018 |
| Literacy Facilitator's guide 13 | 5,032 | 1.5 | | 4,863 | 2018 |
| Total for all 13 | 65,410 | 19.5 | | | |
| INSET Numeracy 13 modules | | | | | |
| Numeracy Teacher Module 1 | 5,010 | 1.5 | | 5,010 | 2019 |
| Numeracy Teacher Module 2 | 3,824 | 1.5 | | 3,824 | 2019 |
| Numeracy Teacher Module 3 | 3,824 | 1.5 | | 3,824 | 2019 |
| Numeracy Teacher Module 4 | 4,390 | 1.5 | | 4,390 | 2019 |
| Numeracy Teacher Module 5 | 4,804 | 1.5 | | 4,804 | 2019 |
| Numeracy Teacher Module 6 | 3,976 | 1.5 | | 3,976 | 2019 |
| Numeracy Teacher Module 7 | 4,390 | 1.5 | | 4,390 | 2019 |
| Numeracy Teacher Module 8 | 4,804 | 1.5 | | 4,804 | 2019 |
| Numeracy Teacher Module 9 | 4,390 | 1.5 | | 4,390 | 2019 |
| Numeracy Teacher Module 10 | 4,390 | 1.5 | | 4,390 | 2019 |
| Numeracy Teacher Module 11 | 4,804 | 1.5 | | 4,804 | 2019 |
| Numeracy Teacher Module 12 | 4,183 | 1.5 | | 4,183 | 2019 |
| Numeracy Teacher Module 13 | 4,183 | 1.5 | | 4,183 | 2019 |
| Total for all 13 | 56,972 | 19.5 | | | |
| INSET Numeracy 13 manuals | | | | | |
| Numeracy Facilitator's guide 1 | 4,928 | 1.5 | | 4,928 | 2019 |
| Numeracy Facilitator's guide 2 | 4,559 | 1.5 | | 4,559 | 2019 |
| Numeracy Facilitator's guide 3 | 4,559 | 1.5 | | 4,559 | 2019 |
| Numeracy Facilitator's guide 4 | 4,928 | 1.5 | | 4,928 | 2019 |
| Numeracy Facilitator's guide 5 | 5,810 | 1.5 | | 5,810 | 2019 |
| Numeracy Facilitator's guide 6 | 4,375 | 1.5 | | 4,375 | 2019 |
| Numeracy Facilitator's guide 7 | 4,743 | 1.5 | | 4,743 | 2019 |
| Numeracy Facilitator's guide 8 | 5,810 | 1.5 | | 5,810 | 2019 |
| Numeracy Facilitator's guide 9 | 4,928 | 1.5 | | 4,928 | 2019 |
| Numeracy Facilitator's guide 10 | 4,926 | 1.5 | | 4,926 | 2019 |
| Numeracy Facilitator's guide 11 | 5,849 | 1.5 | | 5,849 | 2019 |
| Numeracy Facilitator's guide 12 | 4,559 | 1.5 | | 4,559 | 2019 |
| Numeracy Facilitator's guide 13 | 3,922 | 1.5 | | 3,922 | 2019 |
| Total for all 13 | 63,896 | 19.5 | | | |
| Gender responsive pedagogy | | | | | |
| GRP teacher module | 7,155 | 5 | | 6,915 | 2018 |
| GRP facilitator's manual | 5,898 | 5 | | 5,700 | 2018 |
| General effective pedagogy | | | | | |
| 1 general pedagogy module | 5,300 | 5 | | 5,300 | 2019 |

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| | | | | | |
|---|---|---|---|---|---|
| 1 general pedagogy facilitator's manual | 4,263 | 5 | | 4,263 | 2019 |
| Distribution cost for INSET materials | | | | | |
| Literacy 13 modules | | | 1,666,667 | 15,000,000 to 9 regions | |
| Numeracy 13 modules | | | 1,666,667 | 15,000,000 to 9 regions | |
| Gender responsive pedagogy module | | | 1,333,333 | 12,000,000 to 9 regions | |
| General effective pedagogy module | | | 1,333,333 | 12,000,000 to 9 regions | |

Source: EQUIP-T procurement team

## A.4 Cost-effectiveness analysis

This evaluation has not estimated cost-effectiveness, which would compare the impact of the programme on pupil learning, as estimated by the quantitative evaluation, with the associated incremental cost. The methodological requirements for this analysis were explored following the midline study and presented at the 2017 UKFIET Conference. There are two major challenges which led OPM to not conduct cost-effectiveness analysis:

- Cost-effectiveness ideally measures the marginal cost required to deliver one unit of impact – in this case impact would be measured as the average change in learning outcomes in standard deviations. There is a theoretical challenge with defining what the marginal cost is. The learning outcome is achieved by a cohort of pupils in standard 3, however it is a result of the interventions and changes in the school over four years (mid-2014 to mid-2018). Of these four years of interventions, which have costs, which should be linked to the one cohort year of impact? In addition, a large number of interventions took place and it is not possible to robustly estimate the contribution of each one to the learning outcome result. This could mean that costs of an activity are included – raising the total cost – yet they were not at all effective. This of course would lower the cost effectiveness of the whole programme.

- A further challenge, related to the first, is that the programme's spending data is not adequately captured and recorded to allow the actual marginal cost to be estimated. Even at a very aggregate level (say the marginal cost per region), the spending data does not separate out the initial activity development costs, or categorise by region. The programme has not been implemented in the same number of regions throughout its lifetime, so dividing the total costs by numbers of beneficiaries is not an accurate reflection.

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# Annex B Supplementary data: expenditure

## B.1 MA PSA

### Annex table 14. MA PSA original and revised budgets and actual expenditure, 2014-2016, in millions of GBP

| | 2014 | | | 2015 | | | 2016 | | |
|---|---|---|---|---|---|---|---|---|---|
| | original | revised | actual | original | revised | actual | original | revised | actual |
| Total | 10.18 | 3.91 | 2.82 | 18.85 | 6.23 | 6.31 | 3.02 | 3.47 | 3.77 |
| C1 (Quality) | 3.47 | 0.99 | 0.39 | 6.72 | 3.78 | 3.99 | 0.44 | 1.25 | 1.48 |
| C2 (SLM) | 1.15 | 0.36 | 0.12 | 2.13 | 0.63 | 0.58 | 0.50 | 0.72 | 0.72 |
| C3 (DPM) | 2.05 | 0.56 | 0.36 | 5.42 | 1.10 | 1.10 | 0.99 | 0.73 | 0.74 |
| C4 (Comm.) | 1.86 | 0.45 | 0.26 | 2.87 | 0.30 | 0.26 | 0.61 | 0.34 | 0.38 |
| C5 (M&E) | 1.65 | 1.55 | 1.69 | 1.72 | 0.42 | 0.38 | 0.46 | 0.42 | 0.45 |

Source: EQUIP-T MA 2014, 2015 and 2016, and EQUIP-T data.

# Annex C Supplementary data: replication and scale up costs

## C.1 In-service training

### Annex table 15. INSET maximum scenario costs by activity (TZS million)

| INSET | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 | Average |
|---|---|---|---|---|---|---|
| **Total for all regions** | 179,038 | 48,136 | 48,818 | 175,607 | 50,237 | 100,367 |
| **Central Ministry** | 9 | - | - | - | - | 2 |
| Salaries | 9 | - | - | - | - | 2 |
| **Reg. training: TTC tutors** | 2,650 | - | - | - | - | 530 |
| Salaries | 638 | - | - | - | - | 128 |
| Allowances | 1,064 | - | - | - | - | 213 |
| Transport | 80 | - | - | - | - | 16 |
| Venue package | 189 | - | - | - | - | 38 |
| Materials | 101 | - | - | - | - | 20 |
| Fees | 577 | - | - | - | - | 115 |
| **Reg. training: Orientation** | 1,169 | - | - | 943 | - | 422 |
| Salaries | 267 | - | - | 267 | - | 107 |
| Allowances | 436 | - | - | 436 | - | 174 |
| Transport | 151 | - | - | 151 | - | 61 |
| Venue package | 86 | - | - | 86 | - | 35 |
| Materials | 226 | - | - | - | - | 45 |
| Fees | 3 | - | - | 3 | - | 1 |
| **LGA level training** | 127,737 | - | - | 125,145 | - | 50,577 |
| Salaries | 26,419 | - | - | 26,641 | - | 10,612 |
| Allowance | 72,793 | - | - | 73,366 | - | 29,232 |
| Transport | 8,538 | - | - | 8,621 | - | 3,432 |
| Venue package | 14,636 | - | - | 14,751 | - | 5,877 |
| Materials | 3,585 | - | - | - | - | 717 |
| Fees | 1,766 | - | - | 1,766 | - | 707 |
| **Ward/cluster** | 26,565 | 26,624 | 26,682 | 26,741 | 26,800 | 26,682 |
| Salaries | 6,040 | 6,055 | 6,069 | 6,084 | 6,099 | 6,069 |
| Allowance | 8,459 | 8,478 | 8,498 | 8,517 | 8,537 | 8,498 |
| Transport | 10,316 | 10,340 | 10,365 | 10,389 | 10,414 | 10,365 |
| Fees | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 |
| **School-based INSET** | 20,908 | 21,512 | 22,135 | 22,777 | 23,438 | 22,154 |
| Salaries | 13,919 | 14,314 | 14,721 | 15,140 | 15,572 | 14,734 |
| Stationary | 6,988 | 7,198 | 7,414 | 7,636 | 7,865 | 7,420 |

### Annex table 16. INSET maximum scenario costs by code (TZS million)

| | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 | Average |
|---|---|---|---|---|---|---|
| **Total all regions by code** | **179,038** | **48,136** | **48,818** | **175,607** | **50,237** | **100,367** |
| Salaries | 47,293 | 20,369 | 20,791 | 48,132 | 21,671 | 31,651 |
| Allowances | 82,753 | 8,478 | 8,498 | 82,320 | 8,537 | 38,117 |
| Transport | 19,085 | 10,340 | 10,365 | 19,162 | 10,414 | 13,873 |
| Venues/stationary | 21,899 | 7,198 | 7,414 | 22,474 | 7,865 | 13,370 |
| Materials | 3,912 | - | - | - | - | 782 |
| Fees | 4,097 | 1,750 | 1,750 | 3,519 | 1,750 | 2,573 |

## Annex table 17. INSET minimum scenario costs by activity (TZS million)

| | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 | Average |
|---|---|---|---|---|---|---|
| **Total for all regions** | 179,038 | 48,136 | 48,818 | 49,518 | 50,237 | 75,149 |
| **Central Ministry** | 9 | - | - | - | - | 2 |
| Salaries | 9 | - | - | - | - | 2 |
| **Reg. training: TTC tutors** | 2,650 | - | - | - | - | 530 |
| Salaries | 638 | - | - | - | - | 128 |
| Allowances | 1,064 | - | - | - | - | 213 |
| Transport | 80 | - | - | - | - | 16 |
| Venue package | 189 | - | - | - | - | 38 |
| Materials | 101 | - | - | - | - | 20 |
| Fees | 577 | - | - | - | - | 115 |
| **Reg. training: Orientation** | 1,169 | - | - | - | - | 234 |
| Salaries | 267 | - | - | - | - | 53 |
| Allowances | 436 | - | - | - | - | 87 |
| Transport | 151 | - | - | - | - | 30 |
| Venue package | 86 | - | - | - | - | 17 |
| Materials | 226 | - | - | - | - | 45 |
| Fees | 3 | - | - | - | - | 1 |
| **LGA level training** | 127,737 | - | - | - | - | 25,547 |
| Salaries | 26,419 | - | - | - | - | 5,284 |
| Allowance | 72,793 | - | - | - | - | 14,559 |
| Transport | 8,538 | - | - | - | - | 1,708 |
| Venue package | 14,636 | - | - | - | - | 2,927 |
| Materials | 3,585 | - | - | - | - | 717 |
| Fees | 1,766 | - | - | - | - | 353 |
| **Ward/cluster** | 26,565 | 26,624 | 26,682 | 26,741 | 26,800 | 26,682 |
| Salaries | 6,040 | 6,055 | 6,069 | 6,084 | 6,099 | 6,069 |
| Allowance | 8,459 | 8,478 | 8,498 | 8,517 | 8,537 | 8,498 |
| Transport | 10,316 | 10,340 | 10,365 | 10,389 | 10,414 | 10,365 |
| Fees | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 | 1,750 |
| **School-based INSET** | 20,908 | 21,512 | 22,135 | 22,777 | 23,438 | 22,154 |
| Salaries | 13,919 | 14,314 | 14,721 | 15,140 | 15,572 | 14,734 |
| Stationary | 6,988 | 7,198 | 7,414 | 7,636 | 7,865 | 7,420 |

## Annex table 18. INSET minimum scenario costs by code (TZS million)

| INSET | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 | Average |
|---|---|---|---|---|---|---|
| Total all regions by code | 179,038 | 48,136 | 48,818 | 49,518 | 50,237 | 75,149 |
| Salaries | 47,293 | 20,369 | 20,791 | 21,225 | 21,671 | 26,270 |
| Allowances | 82,753 | 8,478 | 8,498 | 8,517 | 8,537 | 23,357 |
| Transport | 19,085 | 10,340 | 10,365 | 10,389 | 10,414 | 12,119 |
| Venues/stationary | 21,899 | 7,198 | 7,414 | 7,636 | 7,865 | 10,402 |
| Materials | 3,912 | - | - | - | - | 782 |
| Fees | 4,097 | 1,750 | 1,750 | 1,750 | 1,750 | 2,220 |

## C.2 PTPs

### Annex table 19. PTP maximum scenario costs by activity (TZS million)

| | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 | Average |
|---|---|---|---|---|---|---|
| **Total for all regions** | 18,376 | 2,699 | 2,780 | 6,824 | 2,950 | 6,726 |
| **Central Ministry** | 2 | - | - | - | - | 0 |
| Salaries | 2 | - | - | - | - | 0 |
| **Regional training** | 603 | - | - | 263 | - | 173 |
| Salaries | 167 | - | - | 78 | - | 49 |
| Allowances | 236 | - | - | 97 | - | 67 |
| Transport | 102 | - | - | 68 | - | 34 |
| Venue package | 43 | - | - | 19 | - | 12 |
| Materials | 55 | - | - | - | - | 11 |
| **LGA level training** | 5,545 | - | - | 3,697 | - | 1,848 |
| Salaries | 1,262 | - | - | 884 | - | 429 |
| Allowance | 2,601 | - | - | 1,769 | - | 874 |
| Transport | 631 | - | - | 641 | - | 254 |
| Venue package | 565 | - | - | 403 | - | 194 |
| Materials | 486 | - | - | - | - | 97 |
| **School/Grants** | 9,606 | - | - | - | - | 1,921 |
| Salaries | 533 | - | - | - | - | 107 |
| Grant payments | 9,073 | - | - | - | - | 1,815 |
| **School level** | 2,621 | 2,699 | 2,780 | 2,864 | 2,950 | 2,783 |
| Salaries | 2,621 | 2,699 | 2,780 | 2,864 | 2,950 | 2,783 |

### Annex table 20. PTP maximum scenario costs by code (TZS million)

| | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 | Average |
|---|---|---|---|---|---|---|
| **Total all regions by code** | 18,376 | 2,699 | 2,780 | 6,824 | 2,950 | 6,726 |
| Salaries | 4,585 | 2,699 | 2,780 | 3,826 | 2,950 | 3,368 |
| Allowances | 2,837 | - | - | 1,866 | - | 941 |
| Transport | 734 | - | - | 709 | - | 289 |
| Venues/stationary | 608 | - | - | 422 | - | 206 |
| Materials | 540 | - | - | - | - | 108 |
| Grant payments | 9,073 | - | - | - | - | 1,815 |

### Annex table 21. PTP minimum scenario costs by activity (TZS million)

| | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 | Average |
|---|---|---|---|---|---|---|
| **Total for all regions** | 4,965 | 2,699 | 2,780 | 2,864 | 2,950 | 3,251 |
| **Central Ministry** | 2 | - | - | - | - | 0 |
| Salaries | 2 | - | - | - | - | 0 |
| **Regional training** | 183 | - | - | - | - | 37 |
| Salaries | 39 | - | - | - | - | 8 |
| Allowances | 49 | - | - | - | - | 10 |
| Transport | 34 | - | - | - | - | 7 |
| Venue package | 9 | - | - | - | - | 2 |
| Materials | 52 | - | - | - | - | 10 |
| **LGA level training** | 2,159 | - | - | - | - | 432 |
| Salaries | 439 | - | - | - | - | 88 |
| Allowance | 877 | - | - | - | - | 175 |
| Transport | 318 | - | - | - | - | 64 |
| Venue package | 200 | - | - | - | - | 40 |

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| | | | | | | |
|---|---|---|---|---|---|---|
| Materials | 326 | - | - | - | - | 65 |
| **School/Grants** | - | - | - | - | - | - |
| Salaries | - | - | - | - | - | - |
| Grant payments | - | - | - | - | - | - |
| **School level** | 2,621 | 2,699 | 2,780 | 2,864 | 2,950 | 2,783 |
| Salaries | 2,621 | 2,699 | 2,780 | 2,864 | 2,950 | 2,783 |

### Annex table 22. PTP minimum scenario costs by code (TZS million)

| | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 | Average |
|---|---|---|---|---|---|---|
| **Total all regions by code** | 4,965 | 2,699 | 2,780 | 2,864 | 2,950 | 3,251 |
| Salaries | 3,100 | 2,699 | 2,780 | 2,864 | 2,950 | 2,879 |
| Allowances | 925 | - | - | - | - | 185 |
| Transport | 352 | - | - | - | - | 70 |
| Venues/stationary | 209 | - | - | - | - | 42 |
| Materials | 378 | - | - | - | - | 76 |
| Grant payments | - | - | - | - | - | - |

## C.3 IGA

### Annex table 23. IGA maximum scenario costs by activity (TZS million)

| | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 | Average |
|---|---|---|---|---|---|---|
| **Total for all regions** | 27,956 | 6,096 | - | 13,961 | 5,911 | 10,785 |
| **Central Ministry** | 3 | - | - | - | - | 1 |
| Salaries | 3 | - | - | - | - | 1 |
| **Regional training** | 871 | 227 | - | 842 | - | 388 |
| Salaries | 237 | 62 | - | 237 | - | 107 |
| Allowances | 367 | 94 | - | 367 | - | 166 |
| Transport | 142 | 44 | - | 142 | - | 66 |
| Venue package | 63 | 16 | - | 63 | - | 29 |
| Materials | 61 | 11 | - | 32 | - | 21 |
| **LGA level training** | 13,189 | 5,869 | - | 13,119 | 5,911 | 7,618 |
| Salaries | 3,044 | 1,998 | - | 3,075 | 2,017 | 2,027 |
| Allowance | 6,532 | 2,532 | - | 6,591 | 2,556 | 3,642 |
| Transport | 1,738 | 673 | - | 1,753 | 679 | 969 |
| Venue package | 1,684 | 653 | - | 1,700 | 659 | 939 |
| Materials | 191 | 13 | - | - | - | 41 |
| **School level/Grants** | 13,893 | - | - | - | - | 2,779 |
| Stationary | 1,171 | - | - | - | - | 234 |
| Salaries | 3,944 | - | - | - | - | 789 |
| Grant payments | 8,779 | - | - | - | - | 1,756 |

### Annex table 24. IGA maximum scenario costs by code (TZS million)

| | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 | Average |
|---|---|---|---|---|---|---|
| **Total all regions by code** | 27,956 | 6,096 | - | 13,961 | 5,911 | 10,785 |
| Salaries | 7,228 | 2,060 | - | 3,313 | 2,017 | 2,923 |
| Allowances | 6,900 | 2,626 | - | 6,959 | 2,556 | 3,808 |
| Transport | 1,880 | 717 | - | 1,895 | 679 | 1,034 |
| Venues/stationary | 2,917 | 669 | - | 1,763 | 659 | 1,202 |
| Materials | 252 | 24 | - | 32 | - | 62 |
| Grant payments | 8,779 | - | - | - | - | 1,756 |

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### Annex table 25. IGA maximum scenario costs by activity (TZS million)

| IGA | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 | Average |
|---|---|---|---|---|---|---|
| **Total for all regions** | 13,978 | 240 | - | - | - | 2,844 |
| **Central Ministry** | 3 | - | - | - | - | 1 |
| Salaries | 3 | - | - | - | - | 1 |
| **Regional training** | 871 | 227 | - | - | - | 220 |
| Salaries | 237 | 62 | - | - | - | 60 |
| Allowances | 367 | 94 | - | - | - | 92 |
| Transport | 142 | 44 | - | - | - | 37 |
| Venue package | 63 | 16 | - | - | - | 16 |
| Materials | 61 | 11 | - | - | - | 14 |
| **LGA level training** | 13,104 | 13 | - | - | - | 2,624 |
| Salaries | 3,044 | - | - | - | - | 609 |
| Allowance | 6,532 | - | - | - | - | 1,306 |
| Transport | 1,738 | - | - | - | - | 348 |
| Venue package | 1,684 | - | - | - | - | 337 |
| Materials | 107 | 13 | - | - | - | 24 |
| **School level/Grants** | - | - | - | - | - | - |
| Stationary | - | - | - | - | - | - |
| Salaries | - | - | - | - | - | - |
| Grant payments | - | - | - | - | - | - |

### Annex table 26. IGA maximum scenario costs by code (TZS million)

| | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 | Average |
|---|---|---|---|---|---|---|
| **Total all regions by code** | 13,978 | 240 | - | - | - | 2,844 |
| Salaries | 3,284 | 62 | - | - | - | 669 |
| Allowances | 6,900 | 94 | - | - | - | 1,399 |
| Transport | 1,880 | 44 | - | - | - | 385 |
| Venues/stationary | 1,747 | 16 | - | - | - | 353 |
| Materials | 168 | 24 | - | - | - | 38 |
| Grant payments | - | - | - | - | - | - |

## C.4 All three activities

### Annex table 27. All three maximum scenario by intervention (TZS million)

| All | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 | Average |
|---|---|---|---|---|---|---|
| **Total for all regions** | 225,370 | 56,931 | 51,598 | 196,392 | 59,098 | 117,878 |
| IGA | 27,956 | 6,096 | - | 13,961 | 5,911 | 10,785 |
| PTP | 18,376 | 2,699 | 2,780 | 6,824 | 2,950 | 6,726 |
| INSET | 179,038 | 48,136 | 48,818 | 175,607 | 50,237 | 100,367 |

### Annex table 28. All three maximum scenario by activity (TZS million)

| All | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 | Average |
|---|---|---|---|---|---|---|
| **Total for all regions** | 225,370.43 | 56,931 | 51,598 | 196,392 | 59,098 | 117,878 |
| **Central Ministry** | 14 | - | - | - | - | 3 |
| Salaries | 14 | - | - | - | - | 3 |
| **Regional training** | 5,292 | 227 | - | 2,049 | - | 1,513 |
| Salaries | 1,309 | 62 | - | 583 | - | 391 |
| Allowances | 2,104 | 94 | - | 901 | - | 620 |

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| | | | | | | |
|---|---|---|---|---|---|---|
| Transport | 475 | 44 | - | 361 | - | 176 |
| Venue package | 381 | 16 | - | 169 | - | 113 |
| Materials | 442 | 11 | - | 32 | - | 97 |
| Fees | 580 | - | - | 3 | - | 117 |
| **LGA /ward/cluster** | 173,037 | 32,493 | 26,682 | 168,702 | 32,711 | 86,725 |
| Salaries | 36,765 | 8,052 | 6,069 | 36,684 | 8,115 | 19,137 |
| Allowance | 90,385 | 11,010 | 8,498 | 90,243 | 11,093 | 42,246 |
| Transport | 21,224 | 11,014 | 10,365 | 21,405 | 11,093 | 15,020 |
| Venue package | 16,884 | 653 | - | 16,854 | 659 | 7,010 |
| Materials | 4,262 | 13 | - | - | - | 855 |
| Fees | 3,517 | 1,750 | 1,750 | 3,517 | 1,750 | 2,457 |
| **School level** | 47,027 | 24,212 | 24,916 | 25,640 | 26,387 | 29,636 |
| Stationary | 8,159 | 7,198 | 7,414 | 7,636 | 7,865 | 7,654 |
| Salaries | 21,017 | 17,014 | 17,502 | 18,004 | 18,522 | 18,412 |
| Grant payments | 17,852 | - | - | - | - | 3,570 |

## Annex table 29. All three maximum scenario by code (TZS million)

| All | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 | Average |
|---|---|---|---|---|---|---|
| **Total all regions by code** | 225,370 | 56,931 | 51,598 | 196,392 | 59,098 | 117,878 |
| Salaries | 59,105 | 25,128 | 23,571 | 55,271 | 26,637 | 37,942 |
| Allowances | 92,489 | 11,104 | 8,498 | 91,145 | 11,093 | 42,866 |
| Transport | 21,699 | 11,057 | 10,365 | 21,766 | 11,093 | 15,196 |
| Venues/stationary | 25,424 | 7,867 | 7,414 | 24,659 | 8,525 | 14,778 |
| Materials | 4,704 | 24 | - | 32 | - | 952 |
| Grant payments | 17,852 | - | - | - | - | 3,570 |
| Fees | 4,097 | 1,750 | 1,750 | 3,519 | 1,750 | 2,573 |

## Annex table 30. All three minimum scenario by intervention (TZS million)

| All | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 | Average |
|---|---|---|---|---|---|---|
| **Total for all regions** | 197,981 | 51,075 | 51,598 | 52,381 | 53,187 | 81,244 |
| IGA | 13,978 | 240 | - | - | - | 2,844 |
| PTP | 4,965 | 2,699 | 2,780 | 2,864 | 2,950 | 3,251 |
| INSET | 179,038 | 48,136 | 48,818 | 49,518 | 50,237 | 75,149 |

## Annex table 31. All three minimum scenario by activity (TZS million)

| All | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 | Average |
|---|---|---|---|---|---|---|
| **Total for all regions** | 197,980 | 51,075 | 51,598 | 52,381 | 53,187 | 81,244 |
| **Central Ministry** | 14 | - | - | - | - | 3 |
| Salaries | 14 | - | - | - | - | 3 |
| **Regional training** | 4,872 | 227 | - | - | - | 1,020 |
| Salaries | 1,181 | 62 | - | - | - | 249 |
| Allowances | 1,917 | 94 | - | - | - | 402 |
| Transport | 407 | 44 | - | - | - | 90 |
| Venue package | 347 | 16 | - | - | - | 73 |
| Materials | 439 | 11 | - | - | - | 90 |
| Fees | 580 | - | - | - | - | 116 |
| **LGA /ward/cluster** | 169,566 | 26,637 | 26,682 | 26,741 | 26,800 | 55,285 |
| Salaries | 35,941 | 6,055 | 6,069 | 6,084 | 6,099 | 12,050 |
| Allowance | 88,661 | 8,478 | 8,498 | 8,517 | 8,537 | 24,538 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Transport | 20,910 | 10,340 | 10,365 | 10,389 | 10,414 | 12,484 |
| Venue package | 16,519 | - | - | - | - | 3,304 |
| Materials | 4,018 | 13 | - | - | - | 806 |
| Fees | 3,517 | 1,750 | 1,750 | 1,750 | 1,750 | 2,104 |
| School level | 23,528 | 24,212 | 24,916 | 25,640 | 26,387 | 24,937 |
| Stationary | 6,988 | 7,198 | 7,414 | 7,636 | 7,865 | 7,420 |
| Salaries | 16,540 | 17,014 | 17,502 | 18,004 | 18,522 | 17,516 |
| Grant payments | - | - | - | - | - | - |

## Annex table 32. All three minimum scenario by code (TZS million)

| All | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 | Average |
|---|---|---|---|---|---|---|
| **Total all regions by code** | 197,981 | 51,075 | 51,598 | 52,381 | 53,187 | 81,244 |
| Salaries | 53,677 | 23,130 | 23,571 | 24,088 | 24,620 | 29,817 |
| Allowances | 90,577 | 8,572 | 8,498 | 8,517 | 8,537 | 24,940 |
| Transport | 21,317 | 10,384 | 10,365 | 10,389 | 10,414 | 12,574 |
| Venues/stationary | 23,855 | 7,214 | 7,414 | 7,636 | 7,865 | 10,797 |
| Materials | 4,458 | 24 | - | - | - | 896 |
| Grant payments | - | - | - | - | - | - |
| Fees | 4,097 | 1,750 | 1,750 | 1,750 | 1,750 | 2,220 |

## About the project

The independent Impact Evaluation of the Education Quality Improvement Programme in Tanzania (EQUIP-T) is a six-year study funded by the United Kingdom Department for International Development (DFID). It is designed to: i) generate evidence on the impact of EQUIP-T on primary pupil learning outcomes, including any differential impacts for girls and boys; ii) examine perceptions of effectiveness of different EQUIP-T components; iii) provide evidence on the fiscal affordability of scaling up EQUIP-T post-2019; and iv) communicate evidence generated by the impact evaluation to policy-makers and key education stakeholders.

EQUIP-T is a Government of Tanzania programme, funded by UK DFID, which seeks to improve the quality of primary education, especially for girls, in nine regions of Tanzania. It focuses on strengthening professional capacity and performance of teachers, school leadership and management, systems which support district management of education, and community participation in education.