



PERFORMANCE AUDIT REPORT ON MANAGEMENT OF DEVELOPMENT FUNDS FOR TECHNICAL INSTITUTIONS

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

MARCH 2018

Vision

Effective accountability in the management of public resources and service delivery

Mission

Audit and report to stakeholders on the fairness, effectiveness and lawfulness in the management of public resources for the benefit of the Kenyan People

Core Values

Independence

Integrity

Professionalism

Innovation

Team Spirit

Motto

Enhancing Accountability

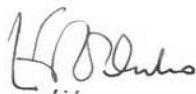
FOREWORD BY THE AUDITOR-GENERAL

I have the honour to present this performance audit report which assessed the management of development funds for technical institutions by the Ministry of Education, Science and Technology. My Office carried out the audit under the mandate conferred to me by the Public Audit Act, 2015, Section 36. The Act mandates the Office of the Auditor – General to examine the Economy, Efficiency and Effectiveness with which public money has been expended pursuant to Article 229 of the Constitution.

Performance, financial and continuous audits form the three pillar audit assurance framework that I have established to give focus to the varied and wide scope of the audit work done by my Office. The framework is intended to provide a high level of assurance to stakeholders that public resources are not only correctly disbursed, recorded and accounted for, but that there is positive impacts on the lives of all Kenyans through effective use of public resources.

This audit report on management of development funds for technical institutions is essential in ensuring that the technical institutions have modern infrastructure that will enhance quality training. Technical and vocational education and training are important in the development of technological and industrial transformation that would lead to sustained economic growth. Our performance audits examine not just compliance with policies, obligations, laws, regulations and standards, but also whether the resources are managed in a sustainable manner.

The report shall be tabled in Parliament in accordance with Article 229 (7) of the Constitution. I have, as required in Section 39 (1) of the Public Audit Act, submitted the original copy of the report to Parliament. In addition, I have remitted copies of the report to the Cabinet Secretary for the Ministry of Education, Science and Technology and to the Principal Secretary, Ministry of Finance as well as to the Secretary, Presidential Delivery Unit.



FCPA Edward R.O. Ouko, CBS
AUDITOR – GENERAL

8 March 2018

LIST OF ABBREVIATIONS

BoG	-	Board of Governors
BoQs	-	Bill of Quantities
CPPMU	-	Central Planning and Project Monitoring Unit
DTE	-	Directorate of Technical Education
GoK	-	Government of Kenya
IST	-	Institutes of Science and Technology
IT	-	Institutes of Technology
MoEST	-	Ministry of Education, Science and Technology
MoHEST	-	Ministry of Higher Education, Science and Technology
OAG	-	Office of the Auditor General
TI	-	Technical Institute
TTI	-	Technical Training Institutes
TVET	-	Technical and Vocational Education and Training

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Background of the audit

The Directorate of Technical Education

1. The Directorate of Technical Education (DTE) in the Ministry of Education Science and Technology is responsible for coordinating national skills training in Technical and Vocational Education and Training (TVET) institutions which are categorized into two namely; Technical Training Institutes (TTI) and Institutes of Technology (IT), herein referred to as technical institutions. It is also responsible for policy, curriculum development, registration and supervision of TVET institutions in the country.

Importance of management of development funds for technical institutions

2. Proper management of development funds for technical institutions is essential in ensuring that the technical institutions have modern infrastructure that will enhance quality training to trainees. Vision 2030 identifies the role of technical and vocational education and training as spurring technological and industrial transformation that would lead to sustained economic growth. This is through delivery of the required skills for employability and job creation in support of priority growth areas.

What we examined

3. The objective of the audit was to establish whether the management systems put in place by the Ministry of Education, Science and Technology ensures efficient administration of development funds for technical institutions.

Scope of the audit

4. The focus of the audit was on the operations of the Directorate of Technical Education and technical institutions in the management of development funds for technical institutions for the period June 2009 to December 2014. The audit sampled 10 out of the 40 technical institutions in the country to review project documentation and examine procurement procedures used by the institutions, the implementation and monitoring of the funded projects. The limitation of the audit is that the audit team was did not interview the project managers i.e the officials from Public Works, who are responsible for preparation of building designs, quantity estimates for purpose of budgeting,issuing interim certificates for payments and supervision of structural components in all Government buildings and institutions.

Sources of funding

5. Technical institutions main sources of funding for development projects during the period under review were Government of Kenya (GOK) funds under the MoEST development vote (D43), Economic Stimulus Programme II (ESP II) funds and donor funds. The Economic Stimulus Programme was initiated by the government in 2009/2010 through the then Ministry of Finance to boost the economy growth through improvement of infrastructure and quality of education. During the five-year period under review, the total amount of funding disbursed to technical institutions from the above three sources was Kshs. 7.58 billion comprising of Kshs 3.69 billion from GOK, Kshs 1.45 billion from ESP II and Kshs 2.44 billion donor funds from DEVOTRA-Netherlands, African Development Bank and Government of China.

Findings of the audit

6. The audit revealed that out of the 41 projects verified, 20 (50%) of them worth Kshs. 711,754,966.98 were successful in that they helped to decongest the existing facilities thereby providing conducive environment for learning. Some projects were completed with time and cost savings while others directly contributed to the increase in student enrolment. Despite the above mentioned successes, the Ministry of Education, Science and Technology has not efficiently administered development funds for technical institutions due to the following;

Inequitable Distribution of Development Funds to Technical Institutions in the Same Category

7. Analysis of the financial data for GoK, ESP II and Donor funds disbursed to technical institutions for development projects provided by the DTE for the period under review showed disparities of disbursed amounts of up to Kshs. 337.9 million between the highest and lowest funded Technical Training Institutes (TTIs) and Kshs. 243 million between the highest and lowest funded Institutes of Technology (ITs). The inequitable distribution of development funds to technical institutions can be attributed to;

a) Lack of a criteria for allocation of development funds to the Technical Institutions

The MoEST only has a criterion for sharing out the appropriated development funds for technical institutions which states; 50% of the funds is to support new and ongoing projects, 25% of the funds is to support special requests and the remaining 25% of the funds is to cater for emerging issues. The criterion does not state how the funds are to be shared between the institutions.

b) Development funds for technical institutions are provided to MoEST as Lump sum by the National Treasury

Analysis of printed estimates for the financial years 2008/2009 to 2013/2014 show that development funds appropriated by parliament for technical institutions are provided to MoEST as lump sum by the National Treasury. There is no budget line showing how much is approved for each institution thereby leaving the allocation of funds to the technical institutions at the discretion of MoEST. In the absence of an allocation criteria, there is disparity in allocation of funds to the institutions.

c) Non adherence to eligibility criteria for funding

Review of documents at the MoEST showed that there was set eligibility criteria which all project proposals are subjected to before being considered for funding. However, the audit revealed that the criteria were not strictly followed in the allocation and disbursement of development funds to institutions that had not completed their previous projects. These were Sigalagala TTI and Thika TTI, in the construction of Tuition Block Phase II and Administration and Classrooms Block Phase II respectively.

There has been delayed realization of development projects' expected benefits to the technical institutions.

8. Review of project files and site inspections revealed that only 10 (24%) of the 41 projects were completed within time. 31 (76%) of the projects inspected which are worth a total of Kshs 1.14 billion had been delayed for periods ranging between 3 weeks to 136 weeks. Out of these 31 projects, 18 (58%) had been delayed by over 52 weeks (over a year). The delay in the completion of the construction development projects was due to the following;

a) Poor needs assessment

The audit revealed that there were no guidelines by the MoEST on how technical institutions should carry out development projects needs assessment and as a result the institutions carried out inadequate needs assessment and had to alter structural designs during project implementation. For example, ESP Twin Workshop at Nyeri TTI and 6 Classrooms at Ol'lessos TTI worth a total of Kshs 44.5 million, delayed due to inadequate needs assessment.

b) Use of labour contracts in the implementation of development projects

Some technical institutions used labour contracts in the implementation of development projects which resulted to delays in completion of

projects due to lack of specialized skills. Review of project files revealed that 9 out of the 41 audited projects had been executed using labour contract yet the type of works did not warrant the use of such contract type. Of the 9 projects, 3 projects worth Kshs. 193.6 million were delayed for between 39 to 131 weeks due to the use of labour contract.

c) Alteration of structural specifications in the original design

Review of project documents revealed that 19 (46.3%) of the 41 projects had structural alterations and omissions in the original BoQs. Out of the 19 projects, 13 projects worth Kshs. 467 million delayed for between 8 and 118 weeks due to structural alterations in the original BoQs. Extra works not captured in the original BoQs contributed to delay in completion of works resulting in delayed realization of the projects objectives.

d) Selection of contractors without capacity

Site inspection for 3 projects worth Kshs 172.6 million revealed that the projects had delayed with between 110 and 120 weeks due to engagement of contractors without adequate capacity.

Lack of economy in implementation of development projects

9. Documentary review of the 41 projects revealed that 20 projects worth Kshs. 634.9 million were not implemented economically due to the following reasons:

a) Non- adherence to contract awarding laws and regulations

There was non-adherence to contract awarding laws and regulations in Gusii IT where by, the lowest evaluated bidder recommended by the evaluation committee was not awarded the contract at a cost of Kshs. 65.7 million. This was as a result of a directive from MoEST to the institution to award it to another contractor at a cost of Kshs. 87.9 million which was Kshs. 30.7 million or 54.6% above the engineer's cost estimate of Kshs. 57.2 million. No explanation was given for this directive.

b) Diversion of development funds for projects to other uses

The audit revealed that not all development funds for projects were utilized for the projects they were meant for. Documentary review of four projects in Rwika TI, Thika TTI and Sigalagala TTI worth Kshs 130.8 million revealed that Kshs. 95 million or 72.6% of the total cost of the projects were diverted to other uses such as payment of salaries to staff while other funds could not be fully accounted for yet the funds had been received for development projects.

c) Variation of works after award of tender

Review of project documents revealed that 19(46.3%) of the 41 projects had structural alterations and omissions in the BoQs. Out of the 19 projects, 11 projects had their overall costs increased by Kshs. 48.8 million of which 3 projects implemented prior to June 2013 had cost variations exceeding 15% that was allowable as at June 2013 due to the extra works not captured in the original BoQs.

d) Unjustified use of restricted tendering instead of open tendering

Documentary review of 4 projects worth Kshs 186.1 million indicated that the contractors were procured using restricted tendering yet the type and value of works did not warrant for the use of restricted tendering.

Lack of monitoring and evaluation of construction development projects

10. Monitoring and evaluation of development projects is necessary to check the progress of the project and to institute timely measures to mitigate problems that may arise during the implementation of the projects. Interviews with the senior managers in DTE, Central Planning and Project Monitoring Unit (CPPMU) and nine out of ten technical institutions visited revealed that there was no monitoring of development projects in technical institutions. No monitoring and evaluation report was provided for review during the audit and no explanation was given for failure to monitor the projects.

Other findings - Lack of adequate documentation

11. There was lack of adequate documentation of project information in some technical institutions which made it difficult to assess projects' performance since some vital information was missing. It was therefore not possible to ascertain economy in procurement of materials as well as efficiency in implementation of projects worth Kshs. 162.7 million.

Conclusions

12. The audit concludes that the system put in place by the MoEST for the administration of development funds for technical institutions has not been effective in ensuring efficient administration of the funds since only 50% of the projects inspected had met their intended objectives. Specifically;

- i. Some technical institutions have very limited capacity to offer vocational and technical training compared to others due to lack of criteria that ensures equitable allocation of funds between institutions.
- ii. Inadequate needs assessment by the technical institutions has led to structural variations after award of contracts thereby giving rise to time and cost increases.

- iii. There have been extensive delays in completion of the development projects by the technical institutions thereby delaying realization of the project's expected benefits and affecting delivery of vocational and technical training at the institutions.
- iv. The MoEST does not have a framework for use in monitoring and evaluation of development projects at the institutions and as a result some technical institutions diverted large amounts of money to other uses leading to delays and stalling of the projects.
- v. The MoEST does not follow up to ensure the bills of quantities, drawings and designs reflect the actual needs of the institutions prior to funding the proposed projects. As a result, there were major errors and omissions in the structural drawings for some projects and the contractors could not execute these projects without alterations.

Recommendations

- 13. To ensure equitable distribution of funds and equitable growth rate among the technical institutions, the Ministry of Education, Science and Technology should formulate clear allocation criteria for development funds for technical institutions to ensure the equitable distribution of development funds to the various ranks of technical institutions.
- 14. To reduce time and cost variations after contract awards, the MoEST should consider formulating guidelines on how technical institutions should carry out development project needs assessment and ensure that the proposed projects clearly reflect the actual needs of the institutions before funding and procurement of contractors.
- 15. To avert inefficiencies caused by non-adherence to procurement rules, the MoEST should consider enforcing adherence to procurement laws by the technical institutions and taken action in case of departure.
- 16. For timely corrective action and to avert cost overruns and delays in implementation of the projects, the MoEST should consider putting in place a framework for monitoring and evaluation of development projects that indicates clearly which department is responsibility for the same.
- 17. To avoid errors in the bills of quantities, structural drawings and designs, the MoEST should consider having professionals undertake these exercises and take responsibility for any errors or omissions in the documents so provided.

Chapter 1

1.0 Background to the Audit

Introduction

- 1.1 The Directorate of Technical Education (DTE) is currently under the State Department of Vocational Technical and Training Education in the Ministry of Education Science and Technology (MoEST). At the time of the audit DTE was one of the 11 directorates under the then State Department of Science and Technology. DTE is charged with the responsibility of coordinating national skills training in Technical and Vocational Education and Training (TVET) institutions. It is responsible for policy, curriculum development, registration and supervision of TVET institutions in the country. These institutions include two Technical Universities, two National Polytechnics, one Technical Teachers College, 26 Technical Training Institutes and 14 Institutes of Technology.
- 1.2 Technical institutions are the implementers of development projects targeted towards technical and vocational education. The objective of development projects is to ensure expansion, access and equity of technical and vocational education and training in existing and marginalised regions and groups and to increase enrolment in technical institutions. The DTE is mandated to manage technical institutions including monitoring and supervising development projects while providing support for development activities in the technical and vocational education and training. The MoEST provides the overall policy direction for technical and vocational education and training as well as funding for the activities of technical institutions including development projects.

Motivation for the Audit

- 1.3 The audit was authorized after considering the following motivational factors:
- i. Vision 2030 identifies the role of technical and vocational education and training as spurring technological and industrial transformation that would lead to sustained economic growth. This is through delivery of

the required skills for employability and job creation in support of priority growth areas.

- ii. The government through MoEST has invested Kshs. 7.6 billion over the past five years (2009/2010-2013/2014) in development projects with the objective of increasing access and equity to technical and vocational training through construction of laboratories, workshops and class rooms and provision of state of the art learning equipment.
- iii. The audit report on the Development Appropriation Account for 2011/2012 financial year had an adverse audit opinion on grants received by technical institutions citing improper utilization of development funds by some technical institutions. The audit report also revealed that some proposed and funded projects were non-existent in some institutions while others used unlawful procurement practices.

Chapter 2

2.0 Design of the Audit

Audit Objectives

- 2.1 The objective of the audit was to establish whether the management systems put in place by the Ministry of Education, Science and Technology ensures efficient administration of development funds for technical institutions.

Audit Scope

- 2.2 The audit focused on examining the operations of the DTE and technical institutions in the management of development funds for technical institutions during the period June 2009 to Dec. 2014. The audit sampled 10 out of the 40 technical institutions in the country to review project documentation and examine procurement procedures used by the institutions, the implementation and monitoring of the funded projects.
- 2.3 The ten institutions were selected on the basis of materiality of funds disbursed and representation of TTIs, TIs, and Institutes of Science and Technology (IST). The ten technical institutions are; Coast IT, Thika TTI, Riwika TI, Meru TTI, Nyeri TTI, Gusii IT, Sigalagala TTI, Kisiwa TTI, O'lessos TTI, Rift Valley IST. The limitation of the audit was that the audit team was not able to interview the project managers i.e the officials from Public Works, who are responsible for preparation of building designs, quantity estimates for purpose of budgeting, issuing interim certificates for payments and supervision of structural components in all Government buildings and institutions.

Methods Used to Gather Audit Evidence

- 2.4 The audit was conducted in accordance with performance auditing guidelines issued by International Organization of Supreme Audit Institutions (INTOSAI) and audit policies and procedures established by the Office of the Auditor General (OAG). The guidelines and policies conform to International Standards for Auditing (ISA) and provide a guide on execution and reporting of audit findings.
- 2.5 Records maintained by the DTE were reviewed with regard to development projects for technical institutions as well as those maintained by the

technical institutions to understand how the projects were managed. In addition, interviews were conducted with various staff at the institutions to understand how technical institutions manage development funds and carried out physical verification of projects within the sampled institutions to verify their existence and completion status. The list of people interviewed and documents reviewed is in **Annexure 1**.

Assessment Criteria

- 2.6 The assessment criteria for the audit are derived from the regulations governing the activities of DTE and the Strategic Plan implementation schedules agreed upon between the MoEST and the DTE. Good practices have also been used to gauge the performance of the Directorate. The sources of the criteria are as outlined in **Annexure 2** while the specific criteria are listed below;
- i. According to the TVET Act 2013, DTE is to provide for establishment of a technical and vocational education and training system by instituting mechanisms for promoting access and equity in training.
 - ii. According to the TVET Strategy 2008/2009-2012/2013, the DTE was to improve TVET facilities through the TVET facilities development program to support the construction, expansion, and equipping of facilities in marginalized and underserved areas.
 - iii. The TVET strategy 2008/2009-2012/2013 Implementation Matrix states that the Ministry was to undertake needs assessment to evaluate the existing capacities and to review and upgrade existing structures and facilities and capacity in order to upgrade establish TVET institutions to offer higher level programs.
 - iv. The TVET Strategy 2008-2013 implementation matrix states that the DTE was to formulate a monitoring and evaluation framework for implementation of TVET system.
 - v. The Public Procurement and Disposal Act Part IV, The Public Procurement and Disposal Regulations and Procurement Manual for Works by the PPOA stipulates the general procurement rules under which procurement of contractors for construction development projects by procuring entities should be undertaken.
 - vi. Section 79 (2)(b) of the Public Finance Management Act 2012 indicates that a public officer employed in a national government, state organ or public entity shall ensure that the resources within the officer's

area of responsibility are used in a way which is lawful and authorised; and is effective, efficient, economical and transparent.

- vii. The Contract agreements between the contractors and the technical institutions that specify the cost of the project and how the project is to
- viii. The Contract agreements between the contractors and the technical institutions that specify the cost of the project and how the project is to be undertaken.

Chapter 3

3.0 Description of the Audit Area

Statutory Mandate for Directorate of Technical Education

- 3.1 According to the Executive Order No. 2/2013, Organization of the Government of the Republic of Kenya, the Ministry of Education, Science and Technology is mandated to manage Technical Training Institutes and Institutes of Science and Technology. Further, according to the Ministry of Higher Education, Science and Technology (MoHEST) Strategic Plan 2008 - 2013, Draft Ministry of Education, Science and Technology (MoEST) Strategic Plan 2013/2014-2017/2018, the DTE is mandated to coordinate and implement technical education and training in the country. The mandate spans:
- i. Enhancing access, equity, quality, and relevance in technical education and training
 - ii. Provision of support for development activities in technical and vocational training
 - iii. Management of technical education programs
 - iv. Providing career guidance and counseling
 - v. Promotion of linkages and collaboration between industry and TVET institutions
 - vi. Promotion of innovativeness and research in TVET institutions
- 3.2 The mandates above were later redefined in the TVET Act 2013 as to provide for the establishment of a technical and vocational education and training system by:
- i. Providing governance and management of institutions offering technical and vocational education and training
 - ii. Providing coordinated assessment, examination, and certification
 - iii. Instituting mechanisms for promoting access and equity in training
 - iv. Assuring standards, quality, and relevance and for connected purposes

Roles and responsibilities

- 3.3 The following are the roles and responsibilities of the MoEST, DTE, technical institutions and the Public Works section under the Ministry of Lands, Housing and Urban Development with regard to management of development funds for technical institutions;
- i. The MoEST provides the overall policy direction for technical and vocational education and training as well as funding for the activities of technical institutions including development projects
 - ii. The DTE is mandated to manage technical institutions including monitoring and supervising development projects while providing support for development activities in the technical and vocational education and training
 - iii. Technical institutions are the implementers of development projects targeted towards technical and vocational education. The objective of development projects is to ensure expansion, access and equity of technical and vocational education and training in existing and marginalized regions and groups and to increase enrolment in technical institutions
 - iv. The Public Works section is the appointed project manager for all development projects for technical institutions

Key Process Descriptions for Development Projects for Technical Institutions

- 3.4 The needs for development projects are identified by heads of departments in consultation with teaching staff and tabled to the Board of Governors for selection and approval. A project proposal is prepared and then forwarded to DTE who after reviewing forwards to the Grants Disbursement Committee of the Ministry for consideration and funding. The Grants Disbursement Committee then selects projects for funding and forwards the list of the recommended projects to the Principal Secretary for State Department of Science and Technology for approval and authorization for funding. Once approved, the funds are released to the technical institutions to proceed with project procurement as per the public procurement laws and regulations and the project implementation commences.

Sources of Funds

- 3.5 Technical institutions have at least three main sources of funding for development projects. These sources are donors namely; DEVOTRA-Netherlands, African Development Bank and the Government of China who supported rehabilitation of laboratories, and workshops for the supply of modern learning equipment; Economic Stimulus Programme II (ESP II)

which are funds provided by the National Treasury through the line ministries to cater for specific projects; and Government of Kenya (GOK) funds under the Ministry's development vote (D43).

- 3.6 In some instances, and where possible the institutions may make some savings from their income generating activities and use it to support the development projects. During the five-year period under review, the total amount of funding disbursed to technical institutions from the above three sources was Kshs. 7.6 billion as illustrated in **Table 1**.

Table 1: Sources of Funds for Development Projects

Financial Year	G.O.K	Donors	ESP II	Total
	Kshs	Kshs	Kshs	Kshs
2009/2010	171,000,000	-	-	171,000,000
2010/2011	549,215,672	-	1,307,420,835	1,856,636,507
2011/2012	648,245,588	1,192,244,629	137,917,752	1,978,407,969
2012/2013	686,854,541	1,249,665,532	-	1,936,520,073
2013/2014	1,631,400,000	-	-	1,631,400,000
Total	3,686,715,801	2,441,910,161	1,445,338,587	7,573,964,549

Source: OAG analysis of Ministry's financial data

4.0 Findings of the Audit

- 4.1 According to the TVET Strategy 2008/2009-2012/2013, the Directorate of Technical Education (DTE) was to improve TVET facilities through the TVET facilities development program to support the construction, expansion, and equipping of facilities in marginalized and underserved areas in order to promote access and equity in training. The audit team visited a total of 10 institutions out of a total of 40 technical institutions and verified 41 development projects funded by the Ministry of Education, Science and Technology (MoEST) and development partners.
- 4.2 Out of the 41 projects verified, 20 (50%) of them worth Kshs. 711.8 million were successful in that they enhanced training by decongesting the existing facilities through construction, expansion, and equipping of facilities thereby providing conducive environment for learning as shown in **Annexure 3**. Some of these successful projects were completed with time saving and others had cost savings. In addition, some of the successful projects directly contributed to the increase in student enrolment as elaborated below.
- 1. Increased student enrolment**
- 4.3 Documentary review in four institutions namely, Nyeri TTI, Kisiwa TTI, Rift Valley Institute of Science and Technology (RVIST) and Meru TTI revealed that there was general increasing trend in enrolment of students over the past five years (2009/2010 to 2013/2014) as indicated in **Table 2**. The institutions' managers directly attributed the increase in enrolment to the expansion and development of learning facilities.

Table 2: Increased students enrolment from 2009-2014

Institution	Nyeri TTI		Kisiwa TTI		Rift Valley IST		Meru TTI	
Project	Rehabilitation of workshops and labs		Electrical and Electronic Workshop		Classrooms		Science Laboratory	
Relevant course	Engineering Courses		Engineering		All		Applied Sciences	
Completion Date	20/01/2012		12/6/2012		10/8/2010		Jun-12	
Year	No. of students	Increase	No. of students	Increase	No. of students	Increase	No. of students	Increase
2009	-	-	-	-	1,797	-	15	-
2010	147	147	15	15	2,340	543	31	16
2011	386	239	5	(10)	2,588	248	21	(10)
2012	504	118	18	13	2,695	107	20	(1)
2013	574	70	18	-	3,615	920	35	15
2014	526	(48)	78	60	3,771	156	53	18
Cummulative Increase		526		78		1,974		38

Source: OAG analysis of data on enrolment from TTI's visited

- 4.4 Further, inspection of development projects in the ten institutions visited, and interviews with institution management revealed that the renovation of workshops, laboratories and supply of equipment funded by development partners had greatly enhanced technical, vocational education and training.

2. Projects completed with time and/or cost savings

- 4.5 According to the PPOA's manual on procurement of works, time control involves the implementation and completion of the project within the agreed works program while cost control involves the implementation and completion of the project within the contract price. Cost control entails close monitoring and effective management of payment certificates and their timely processing, approval and payments.
- 4.6 Review of project documents for the construction of Workshop and Laboratories Block at Coast IT at a cost of Kshs. 41.2 million revealed that the project was to be completed within 52 weeks but was completed within 48 weeks, 4 weeks ahead of schedule with good workmanship. This time saving was attributed to proper management of the project which entailed constant monitoring and supervision by qualified personnel within the institution. As at the time of audit, the laboratories were all in use and the institution is able to offer courses above the certificate level that were not offered previously.

4.7 Review of project documents for the construction of Science Laboratory Block at Meru TTI revealed that the cost control aspect of the project was well managed. The original contract price was Kshs. 31.7 million but the institution was able to implement the project for a total sum of Kshs. 27.3 million which was about 86% of the original sum, the surplus Kshs. 4.4 million was spent in constructing and equipping food and beverages kitchen. According to interviews and documents provided during the audit, the institution had an effective supervision and monitoring team who would always value works from time to time so as to pay the contractor for works done. The effect of using monies provided prudently is that the institution had a surplus budget to fund other needy areas since resources are scarce and not all development projects can be funded by the Government.

4.8 Besides the above successes, the audit revealed that the Ministry of Education, Science and Technology has not efficiently administered development funds for technical institutions due to the following;

I. Inequitable Distribution of Development Funds to Technical Institutions in the Same Category

4.9 According to the MoHEST Strategic Plan 2008 - 2013, draft MoEST strategic plan 2013 -2018 and TVET ACT 2013, MoEST is to provide for the establishment of a technical and vocational education and training system by instituting mechanisms for promoting access and equity in training. One of these mechanism included the “TIVET facilities Development Programme” identified by the Directorate of Technical Education to ensure expansion, access and equity to TVET in existing and underserved regions as well as equipping of facilities. Analysis of the financial data for GoK, ESP II and Donor funds disbursed to technical institutions for development projects provided by the DTE for the period under review revealed that there was inequitable distribution of development funds to the technical institutions.

4.10 The data as indicated in **Table 3** showed that there were disparities of disbursed amounts of up to Kshs. 337.9 million between the highest and lowest funded Technical Training Institutes, where the highest funded was Nyeri TTI at Kshs. 383 million and the lowest funded was Ol’lessos TTI at Kshs 45.1 million. Among the Institutes of Technology, there were disparities of up to Kshs. 243 million between the highest and lowest funded Institutes, where the highest funded was Gusii IT at Kshs. 295 million and the lowest funded was Siaya IT at Kshs. 52 million. The detailed list of the funds disbursed to all the institutions is in **Annexure 4**.

Table 3: Disparities in funding between institutions in the same rank

Component of Funding	Technical Training Institutes			Institutes of Technology		
	Nyeri TTI Kshs.	Ol'lessos TTI Kshs.	Difference in funding	Gusii IT Kshs.	Siaya IT Kshs.	Difference in funding
Donor funded Equipment (DEVOTRA/ADB)	232,576,003	-	232,576,003	150,856,418	-	150,856,418
Donor Funded Construction (ADB)	80,887,787	-	80,887,787	87,895,031	-	87,895,031
GOK Funded Projects	69,522,245	45,131,940	24,390,305	56,241,196	51,943,313	4,297,883
Total (Kshs.)	382,986,035	45,131,940	337,854,095	294,992,695	51,943,313	243,049,382

Source: OAG analysis of data on funding from DTE

4.11 Further, an inspection of the completed ESP funded workshops at Ol'lessos TTI and Rwika Technical Institute revealed that no equipment had been received and instead the rooms were being used as classrooms. Interviews with the institutions' management revealed that the principals have been requesting for equipment from the Ministry since 2009 but as at the time of the audit in December 2014, the equipment had not been provided yet other institutions had received equipment worth hundreds of millions over the same period.

4.12 The disparities in funding indicates that the resources have not been shared equitably and as a result there is lack of uniformity in growth of the technical institutions and in provision of technical education and vocational training among the three ranks of institutions and between the various regions of the country. The inequitable distribution of development funds to technical institutions can be attributed to;

a) Lack of a criteria for allocation of development funds to the Technical Institutions

4.13 The Ministry is expected to have a criteria or formula that ensures the funds provided for technical institutions are shared equitably among the existing institutions. During the audit it was noted that the Ministry has a criterion for disbursement of development funds that states; 50% of the funds to support new and ongoing projects, 25% of the funds to support special requests and the remaining 25% of the funds to cater for emerging issues. The criteria mentions sharing of total development funds

appropriated for the technical institutions but fail to state how the funds are to be shared between the institutions. The effect is inequitable distribution of the funds as indicated in **Table 3**.

b) Development funds for technical institutions are provided to MoEST as a block amount by the Ministry of Finance

4.14 The printed estimates indicate that the funds for national polytechnics are voted for the individual polytechnic while the development funds appropriated by parliament for technical institutions are provided to MoEST as a block amount by the National Treasury as indicated in **Table 4**. Unlike the case for national polytechnics, there is no budget line showing how much is approved for each technical institution thereby leaving the allocation of funds to these institutions at the discretion of MoEST. As a result, the development funds are allocated to the institutions subjectively thus some institutions are highly funded while others receive too little to aid their growth.

Table 4: Funds Provided for Development of Technical Institutions under Vote D43 (MoEST)

Financial year	Sub-Vote	Item	Amount in Kshs.
2009/2010	4302	Technical Education	1,189,765,000
2010/2011	4302	Technical Education	1,200,000,000
2011/2012	431	Technical Education	2,394,000,000
2012/2013	431	Technical Education	4,831,200,000
2013/2014	106006900	Technical Training Institutes	1,441,400,000
	106007200	Institutes of Technology	190,000,000

Source: OAG analysis of printed estimates for the year 2008/2009-2012/2013

c) Non adherence to eligibility criteria for funding

4.15 Documents provided by the DTE indicates the criteria for eligibility for funding which stipulates that an institution must;

- a. Show the justification and the need for the project
- b. Have the project approved by the Board of Governors, the Public Works section under the Ministry of Lands, Housing and Urban Development and regulatory bodies as necessary and should be completed within a maximum period of three (3) years
- c. Ensure the proposed project does not exceed Kshs. 25 million
- d. Target one capital project at a time until completion

- e. Be confined to development, expansion, upgrading/rehabilitation
 - f. Reflect government priorities, institutional master plan or signed performance contract
 - g. Have a clean land title deed, and effective quality management system in place
- 4.16 Documentary review revealed that the Ministry does not strictly follow the set eligibility criteria. For example, review of projects files in Sigalagala TTI and Thika TTI revealed that the institutions were not eligible for the funding for the Tuition Block Phase II and Administration and Classrooms Block Phase II respectively as per the guideline (d) above since the first phases of these projects were incomplete. For instance, Sigalagala TTI requested for funding for Tuition Block Phase II and the Ministry proceeded to disburse an amount of Kshs. 12.7 million on 8 September, 2012 despite the fact that Tuition Block Phase I was still incomplete. The Ministry also proceeded to fund Phase II of the Classroom and Administration Block in Thika TTI, to the same contractor, though Phase I had not been completed and was still incomplete as at the time of audit in December 2014.
- 4.17 Such disbursements of funds to institutions that are not eligible for funding is an indicator that the DTE does not adhere to its eligibility policy and the effect is inequitable allocation of development funds among institutions leading to slower pace of development of facilities and infrastructure in some institutions compared to others in the same rank.

II. There has been delayed realization of development projects' expected benefits to the technical institutions

- 4.18 According to the TVET Strategy 2008 - 2013, one of the strategic programs to be employed by the DTE was the "TVET Facilities Development Program" which was meant to facilitate access, equity and promote the quality of technical and vocational education and training. Some of the key indicators for achievement to the overall goal of the program include; increased transition rates, increased participation rates, regional distribution of facilities, and strengthened capacity within technical institutions. In addition, the PPOA's manual on procurement of works indicates that time control involves the implementation and completion of the project within the agreed works programme. This requires the close monitoring and effective management of works programme and delays and extensions to ensure that the project is completed within contracted timelines.

4.19 The audit inspected 10 out of 40 technical institutions in the country and verified 41 development projects funded by the MoEST and development partners. Document review of project files and site inspections revealed 31 out of 41 (76%) of the projects worth a total of Kshs 1.14 billion had been delayed with between 3 weeks to 136 weeks as shown in **Annexure 5**. 18 or 58% delayed by over 52 weeks (one year), while 5 or 16% delayed by 24 to 52 weeks and the remaining 8 or 26% delayed by less than 24 weeks (less than six months). The delay in the completion of development projects delayed the realization of the expected benefits and can be attributed to;

a) Poor needs assessment

4.20 TVET Strategy 2008 - 2013 Implementation Matrix required that the DTE should undertake needs assessment to evaluate existing capacities, review and upgrade existing structures and facilities in order to upgrade TVET institutions to offer higher level program. Out of the 31 projects that delayed two of them namely, ESP Twin Workshop at Nyeri TTI and 6 Classrooms at Ol'lessos TTI worth a total of Kshs 44.5 million delayed with 32 and 12 weeks respectively due to poor needs assessment. Documentary review at Nyeri TTI revealed that the institution undertook a development project for the construction of twin workshops funded by the ESP II at a cost of Kshs. 36 million. The project was expected to be completed by June 2012 after 48 weeks but was instead completed on December 2013 resulting to a delay of 32 weeks.

4.21 The delay in implementation was caused by structural alterations by the client during the contract implementation as well as delays in procurement and installation of the electrical works which had not been done with the main project. This is an indicator that the needs assessment was not properly done and that the original BoQs and drawings could have had errors resulting to changes during project implementation. The effect is that the expected benefits to the students and staff were delayed with 32 weeks which is about two academic semesters.

b) Use of labour contracts in the implementation of development projects

4.22 Upon approval of projects' funding proposals by the Ministry, the technical institutions are required to procure the services of contractors in line with the Government Procurement laws and regulations. Further, the PPOA Procurement Manual for Works indicates that labour intensive contracts are only applicable in the case of construction types lending to labour intensive practices like rural infrastructure projects e.g. feeder roads and not for high technology construction techniques like high rise buildings.

Documentary review of the projects visited indicated that nine projects had been executed using labour contract yet the type of works did not warrant for the use of such contract type. As a result, three out of the nine projects worth Kshs. 193.6 million were delayed for between 39 and 131 weeks as indicated in **Annexure 5**. The effect was inefficiencies in project implementation that led to project's ineffectiveness as indicated in **Case Study 1**.

Case Study 1: Use of labour contracts resulting to ineffectiveness

Institution: Rift Valley Institute of Science & Technology

Project name: Construction of library to accommodate 1500 students

Source of funding: GOK

Commencement date: May 2010

Project status as at December 2014: Stalled at 60% of completion.

Amount spent: Kshs 48,134,167 (99.9% of the contracted sum of Kshs. 48, 232, 414)

Extent of delays: 236 weeks (About 4 and half years)

Performance issue: The project is ineffective since the expected benefits have not been realized thus there is no value for money for the funds that have been spent on the project. Lack of economy and inefficiency in implementation of the project are the factors contributing to the project's ineffectiveness. The institution used labour contract at the beginning affecting efficiency and then used restricted tendering thereby compromising economy in implementation of the project. The funds disbursed by the Ministry for the project have been used up yet the project is stalled at 60% completion. If no action is taken, there is a risk of the project becoming a white elephant.



Photo showing status of the project as at December 2014

NB: The amount spent on the project under the labour contract could not be ascertained since there were no documents for the payments. Therefore, the project has spent more than the KShs 48 million indicated above.

Source: Documentary review of project file and project physical verification

4.23 In addition, use of labour contracts increased the project implementation costs due to increase in costs of materials caused by the delay in the completion of the project. For example, documentary review in Meru TTI revealed that the total cost for the construction of the library complex was Kshs. 95.7 million, an excess of Kshs. 23.2 million of the original estimated cost of Kshs. 72.4 million thereby varying the cost of the project by 32% which was not in accordance with the 15% threshold that was allowable by PPOA procurement manual for works as at June 2013. This was caused by the choice of the institution to use a labour only contract for all the four phases which contributed to the project being delayed by 39 weeks. The delay occurred because the client delayed in delivering materials and issuing site instructions to the contractor. The delay in delivery of materials contributed to the cost variation because of the rise of the cost of materials in the market. This resulted to costs exceeding the contract price.

c) Alteration of Structural Specifications in the Original Design

4.24 The PPOA procurement manual for works Chapter 4 on tendering procedures indicates that the requirements for the works should be fully identified with detailed technical specifications, drawings and plans as well as the Bills of Quantities as appropriate. The technical department of the procuring entity should prepare plans, drawings detailed specifications and Bills of Quantities or Activity Schedule for the required works. If the procuring entity does not have a recognized technical department for this purpose the assistance of relevant technical ministries should be solicited for this and other related tasks associated with the tendering process. It further states that, the preparation of tender documents would be started after key components such the designs, drawings, specifications and Bill of Quantities have been completed and approved by the end user.

4.25 Review of project documents revealed that 19 or 46.3% of the 41 projects had structural alterations and omissions in the BoQs. Out of the 19 projects, 13 of them worth Kshs. 467 million delayed for between eight and 118 weeks as listed in **Annexure 5**. The delay in the completion of works resulted to delayed realization of objectives in some projects while in other projects it resulted to ineffectiveness of the project as indicated in **Case Study 2**.

Case Study 2: Alterations of structural specifications leading to ineffectiveness

Institution: Sigalagala Technical Training Institute

Project name: Construction of an Automotive and Mechanical Engineering workshop

Source of funding: Economic Stimulus Package (ESP II)

Commencement date: 17/8/2011

Project status as at December 2014: 100% complete

Amount spent: Kshs. 30,315,733.45

Performance issue: The project is ineffective since it is not serving the purpose for which it was intended. Physical verification of the project in December 2014 revealed that the building was not being utilized as a Mechanical and Automotive workshop but rather as classrooms. The explanation provided was that the measurements in the drawings for the workshops and the BoQs used did not meet the required standards for a workshop. The standard measurement for workshop headroom (space between the ground floor and the suspended slab) should be 3 meters but the design provided only 2.5 meters and would lead to suffocation if used as a workshop. In addition, the doors to the building were too small for workshop machinery to pass through. It is not clear why the project manager, that is, Ministry of Public Works provided structural drawings and designs with such errors and continued to approve the payment certificates till completion. The institution's building and construction supervisory team who have the technical expertise required in drawing and preparation of the BoQs should have noted this anomaly and taken corrective action. It is evident that the economy of the project was compromised since the cost of building classrooms is not equal to that of workshops due to difference in standard measurements. The institution is still in need of workshops.



The completed workshops that are being used as classrooms since they are not fit for use as workshops

Source: Documentary review of project file and project physical verification

d) Selection of contractors without capacity

- 4.26 According to the Public Procurement and Disposal Act 2005 section 31.(1) (a), a person is qualified to be awarded a contract for procurement only if the person has the necessary qualifications, capability, experience,

resources, equipment and facilities to provide what is being procured. Site inspection for 3 projects worth Kshs 172.6 million revealed that the projects had delayed with between 110 and 120 weeks due to engagement of contractors without adequate capacity as indicated in **Annexure 5**.

- 4.27 For instance, documentary review of the construction of Mechanical and Engineering workshop at Nyeri TTI revealed that the project was incomplete 162 weeks after it had commenced. The construction of the project was to take 52 weeks therefore had been delayed by 110 weeks (2 years and 6 weeks) as at the time of audit on 9 December, 2014. Site inspection revealed that the contractor was on site with only three workers, an indication of capacity constraints. Interviews with the site secretary indicated that contractor was experiencing financial challenges.
- 4.28 The contractor's efficiency could have been affected by two other ADB projects that he was doing concurrently in Kisumu and Eldoret Polytechnics which the consultant indicated were also delayed. It is not clear why the MoEST offered three ADB projects to the same contractor at around the same time. The effect is that the expected benefits of the project have not been realized two years after the expected completion date yet an amount of Kshs. 48.9 million which is 60.4 % of the contract sum has been spent.

III. Lack of Economy in Implementation of Development Projects

- 4.29 Section 79 (2)(b) of the Public Finance Management Act, 2012 indicates that a public officer employed in a national government, state organ or public entity shall ensure that the resources within the officer's area of responsibility are used in a way which is lawful and authorised; and is effective, efficient, economical and transparent. The Ministry and the managers of the technical institutions are therefore expected to ensure the development projects are implemented economically so as to safeguard the available but limited resources. Documentary review of the 41 projects revealed that 20 of them worth Kshs 634.9 million as highlighted in **Annexure 6** and in the paragraphs below were not implemented economically due to the following;

a) Non - adherence to contract awarding laws and regulations

- 4.30 According to the Public Procurement and Disposal Regulations 2006 Section 51 (1) (i) "an evaluation report shall include a recommendation to award the contract to the lowest evaluated tenderer". Section 51 (2) further states that "The evaluation report prepared shall be considered by

the Tender Committee prior to awarding the contract or taking any other action in relation to the procurement as may be necessary". These provisions were breached in Gusii TTI indicating lack of economy in implementation of the project as indicated in **Case Study 3**.

Case Study 3: Irregular award of contract

Institution: Gusii Technical Training Institute

Project name: Construction of the Mechanical Engineering workshop

Source of funding: GOK/African Development Bank (ADB)

Commencement date: 24 December 2011

Project status as at December 2014: 86% complete.

Amount spent: Kshs 88,049,920(100.2% of the contracted sum of Kshs. 87,895,031)

Extent of delays: 102 weeks (About 2 years)

Performance issue: Lack of economy attributed to non-adherence to procurement rules. The Ministry of Public Works official estimates for the project was Kshs. 57,205,559.27. The tender evaluation committee recommended in its evaluation report that the lowest evaluated bidder, Eva Sound Construction be awarded the contract at a contract price of Kshs. 65,746,611.32. However, review of the Tender Award Minutes revealed that tender was awarded to Alfatech Contractors Limited at a contract sum of Kshs. 87,895,031 which was Kshs 30,689,472 or 54.6% above the official estimates and KShs 22,148,420 or 33.7% above the lowest evaluate tenderer. There was no explanation in the Tender Award Minutes as to why the tender evaluation recommendation was ignored. Explanations sought revealed that there was directive to the institution by the Ministry vide a letter Ref: MST/ADM/6/11/VOL VI (92) dated 22 September, 2011 indicating that the contract be awarded to Alfatech Contractors Limited as the winning bidder. No explanation has been provided by the Ministry for the directive. The effect is that there was no economy in the implementation of the project since an amount of Kshs 22,148,420 would have been saved had the contract been awarded to the lowest evaluated tenderer. In addition, as at the time of audit in December 2014, the project was only 86% complete yet all the funds had been exhausted and the project was 2 years behind schedule. Therefore, there is no value for money achieved yet

Source: Documentary review of project file and project physical verification

b) D

c) Diversion of development funds for Projects to other uses

- 4.31 The PPOA manual for procurement of works provides that contract management includes cost control which involves the implementation and completion of the project within the contract price and requires the close monitoring and effective management of payment certificates and their timely processing, approval and payments. The conditions for use of the funds disbursed by the Ministry indicate that funds disbursed for development should not be diverted to other uses without the express authority of the MoEST. Documentary review of 4 projects in Rwika TI, Thika TTI and Sigalagala TTI worth KShs 130.8 million revealed that

KShs. 95 million or 72.6% of the total cost of the projects were diverted to other uses.

- 4.32 Site inspection of the Multi-Purpose Complex at Rwika TI revealed that the cost control for the project was not properly managed. As at the time of audit on 3rd December, 2014, only the substructure was in place yet an amount of Kshs. 45 million which is 87% of the contract sum had been received by the institution. Out of the Kshs. 45 million received, only Kshs. 28.2 million had been paid to the contractor, the last certificate and payment being made on 31 December, 2012. It is evident that an amount of Kshs. 16.8 million meant for the project had been diverted to other uses since the bank statement for the project had only a balance of Kshs. 49,131.00 as at 8 October, 2014. The effect of lack of cost control of the project has led to lack of economy in the implementation of the project since the project has stalled due to lack of funds.
- 4.33 Documentary review at Sigalagala TTI revealed that an amount of Kshs. 33.3 million was disbursed to the institution for the construction of Tuition Block Phase I. Out of the Kshs. 33.3 million, an amount Kshs. 8.8 million was diverted to various uses such as; Kshs. 4 million to complete the construction of the library, KShs. 1.9 million to fund operations and Kshs. 2.8 million to the college fund account. As a result of the diversion, the contractor was not paid on time, causing delay of up to 125 weeks in the implementation of the project.
- 4.34 Physical inspection during the audit in 1 December, 2014 confirmed that the works for Tuition Block Phase II at Sigalagala TTI was yet to commence 136 weeks after the contract was signed with the contractor. Explanations sought revealed that KShs. 4million of the Kshs. 24.4 million received for Phase II of the project was diverted to complete Tuition Phase I which had stalled, Kshs. 7.1 million was used to pay staff salaries and other operation expenses and Kshs. 500,000 was used for BoG project supervision. The balance of Kshs. 12.7 million could not be accounted for since bank statement provided did not reflect this amount.
- 4.35 The effect of the mismanagement of the development funds is that there has been no economy in use of the funds thereby leading to delays in realization of expected benefits as indicated in **Case Study 4** and ineffectiveness of the projects. This in turn makes the projects ineffective thus there is no value for money for the funds already sunk in the stalled projects. The stalled projects risk being white elephants if no timely action is taken.

Case Study 4: Mismanagement of funds meant for development projects

Institution: Thika Technical Training Institute

Project name: Construction of classrooms, computer labs and administration block

Source of funding: GOK

Project status as at December 2014: Stalled but in use though incomplete. Percentage of completion could not be determined.

Amount spent: Phase I - Kshs 16,274,060 (86.1% of the contracted sum of Kshs 18,908,288.00)

Phase II – Kshs 12,182,028 (38.3% of the contracted sum of Kshs 31,803,444.90).

Total is Kshs 28, 456, 088 (Total contracted sum Kshs 50,711,732.90)

Amount Disbursed for the project: Kshs 82,308,373.10

Performance issue: Lack of economy and efficiency in implementation of the project which commenced on 21 March, 2011. The total contracted price for the two phases of the project is Kshs 50,711,732.90. Letters of funds disbursement from the Ministry indicate that an amount of Kshs 82,308,373.10 was disbursed for the purposes of construction of the Tuition and Administration Block. As at the time of audit on 1 December, 2014, a total amount of Kshs 28, 456, 088 had been paid for the two phases. There was no clear explanation why the Ministry had disbursed Kshs 82,308,373.10 for the two phases which was Kshs 31,596,640 or 62.3% in excess of the contract price. In addition, no explanation was provided as to how the balance of Kshs. 53,852,285 disbursed for the project had been utilized since the last payment to the contractors was made on 7 January, 2014 and physical site inspection of the project revealed that the project had stalled and the contractor was not on site. The entire project is yet to be completed 4 years after it was contracted in December, 2010 even after excess funds had been provided for the project. This indicates that the project was not economically and efficiently implemented. The students have no option but to use the incomplete building with floors that are not plastered and an ablution block that is not functional as depicted in the pictures below. This poses a risk to the staff and students using the incomplete project thus prompt action need to be taken to ensure speedy completion of the project for optimal use by the students.



Photo showing status of the project

Source: Documentary review of project file and project physical verification

d) Variation of Works after award of tender

- 4.36 The PPOA manual for procurement of works provides that contract management includes cost control which involves the implementation and completion of the project within the contract price. Physical variations that have the tendency of increasing the contract price and extending the contract period should be kept to the barest minimum. Prior to June, 2013 the maximum allowable limit for contract variation was 15% of the original contract sum which was revised to 25% as per the Legal Notice No. 106 of 18 June 2013.

4.37 Review of project documents in the ten institutions visited revealed that 19 or 46.3% of the 41 projects had structural alterations and omissions in the BoQs. Out of the 19 projects, 11 of them had their overall costs increased by Kshs. 48.8 million of which 3 projects implemented prior to June 2013 had cost variations exceeding the threshold of 15% allowable as at June 2013 due to the extra works not captured in the original BoQs as shown in **Annexure 6**. The three projects were Coast IT rehabilitation centre of excellence, Nyeri tuition block Phase I and Meru TT library complex.

e) Unjustified use of restricted tendering instead of open tendering

4.38 Section 73(1) of the Public Procurement Act 2005, states that a public institution may use restricted tendering if; the contract is complex or specialized in nature and is limited to prequalified contractors; and if the time and cost required to examine and evaluate a large number of tenders would be disproportionate to the value of goods, works or services to be procured and there are only a few known suppliers of the goods, works or services as prescribed in the regulations.

4.39 Documentary review of four projects worth Kshs 186.1 million as shown in **Annexure 6** indicated that the contractors were procured using restricted tendering yet the type and value of works did not warrant for the use of restricted tendering. The main reason cited for the use of restricted tendering in the above mentioned projects was limited time before the completion of the project deadline issued by the Ministry. The effect of the use of restricted tendering is that the contractors were not selected competitively hence the projects may not have been implemented economically.

IV. Lack of Monitoring and Evaluation of Construction Development Projects

4.40 According to the TVET Strategy 2008 - 2013, DTE was to formulate a monitoring and evaluation framework for implementation of a TVET system. Interviews with the management in DTE, Central Planning and Project Monitoring Unit (CPPMU) and nine out of ten technical institutions visited (90% of the institutions) revealed that there was no monitoring of development projects in technical institutions. Only Coast IT indicated that the Ministry officials had carried out monitoring and evaluation from time to time. However, no monitoring and evaluation report was provided for review during the audit. The effect of lack of monitoring and evaluation is that the Ministry cannot institute timely measures to mitigate problems that

may arise during the implementation of the projects. As a result, there has been extensive delays, cost overruns and implementation of projects that do not meet their set objectives.

V. Other finding – Lack of adequate documentation

- 4.41 Section 45(1) and (2) of the Public Procurement Act 2005 provides that; a procuring entity shall keep records for each procurement for at least six years after the resulting contract was entered into or, if no contract resulted, after the procurement proceedings were terminated. Documentary review of project files revealed that 5 projects did not have adequate documentation on the projects as indicated in **Table 5**. The vital documents missing for the audit included some payment certificates, handing over certificates by the contractors, completion certificates, contract agreements and site handing over minutes. It was therefore not possible to ascertain economy in procurement of materials as well as efficiency in implementation of projects worth KShs. 162.7 million.

Table 5 : Projects with inadequate documentation

Institution	Project name	Project cost in (Kshs.)	Missing documents
Meru TTI	Library Complex (Had 4 phases)	95,673,593.10	Payment certificates, handing over certificates for phase I,II & III, site handing over minutes for phase II & III, contract agreement for phase I
Thika TTI	Rehabilitation of mechanical workshop	12,440,664.00	Payment certificates, progress reports, site meeting minutes, handing over certificate
	Classrooms, computer labs & Administration block	18,908,288.00	Site handing over minutes, payment certificates No. 5&6
	ESP classrooms and labs	25,739,715.00	Some payment certificates
RVIST	Classrooms	9,950,000.00	All contract documents
Total		162,712,260.10	

Source: OAG analysis of project information at the institutions

Ministry's Response to Audit Findings

- 4.42 At the conclusion of the audit, the Office of the Auditor- General sent out a management letter to the Ministry of Education, Science and Technology requesting for comments on audit finding but the Ministry did not provide any comments.

5.0 Conclusions

- 5.1 The audit concludes that the system put in place by the Ministry of Education, Science and Technology for the administration of development funds for technical institutions have not been effective in ensuring efficient administration of the funds since only 50% of the projects inspected had met their intended objectives. Specifically;
- i. Some technical institutions have very limited capacity to offer vocational and technical training compared to others due to lack of a criterion that ensures equitable allocation of funds between institutions.
 - ii. Inadequate needs assessment by the technical institutions has led to structural variations after award of contracts thereby giving rise to time and cost increases.
 - iii. There have been extensive delays in completion of the development projects by the technical institutions thereby delaying realization of the project's expected benefits and affecting delivery of vocational and technical training at the institutions.
 - iv. The Ministry of Education, Science and Technology does not have a framework for use in monitoring and evaluation of development projects at the institutions and as a result some technical institutions diverted large amounts of money to other uses leading to delays and stalling of the projects.
 - v. The Ministry of Education, Science and Technology does not follow up to ensure the bills of quantities, drawings and designs reflect the actual needs of the institutions prior to funding the proposed projects. As a result, there were major errors and omissions in the structural drawings for some projects and the contractors could not execute these projects without alterations.

6.0 Recommendations

- 6.1 To ensure equitable distribution of funds and equitable growth rate among the technical institutions, the Ministry of Education, Science and Technology should consider formulating clear allocation criteria for development funds for technical institutions to ensure the equitable distribution of development funds to the various ranks of technical institutions. uniform
- 6.2 To minimize time and cost variations after contract awards, the Ministry of Education, Science and Technology consider formulating guidelines on how technical institutions should carry out development project needs assessment and ensure that the proposed projects clearly reflect the actual needs of the institutions before funding and procurement of contractors commences.
- 6.3 To avert inefficiencies caused by non-adherence to procurement rules, the Ministry of Education, Science and Technology should consider enforcing strict adherence to procurement laws by the technical institutions and taken action in case of departure.
- 6.4 For timely corrective action and to avert cost overruns and delays in implementation of the projects, the Ministry of Education, Science and Technology should consider putting in place a framework for monitoring and evaluation of development projects that indicates clearly which department is responsibility for the same.
- 6.5 To avoid errors in the bills of quantities, structural drawings and designs, The Ministry of Education, Science and Technology should consider having professionals undertake these exercises so they can take responsibility for any errors or omissions in the documents so provided.

7.0 ANNEXURES

Annexure 1: List of people interviewed and documents reviewed

Date	Institution	Officers interviewed
24/11/2014	Gusii IT	The Principal, Deputy Principal – Academics Deputy Principal – Administration, HOD Electrical Engineering, HOD Mechanical Engineering, Finance Officer, Librarian and Procurement Officer
26/11/2014	Coast IT	The Principal, Dean of Students and the Procurement Officer
27/11/2014	Sigalagala TTI	The Principal, Deputy Principal, Academics, Finance Officer, Accountant, Procurement Officers Stores Keeper and Clerk
28/11/2014	Thika TTI	Deputy Principal- Administration and Finance Officer
2/12/2014	Kisiwa TTI	The Principal
3/12/2014	Rwika TI	The Principal and Deputy Principal
4/12/2014	Meru TTI	The Principal, Deputy Principal, Administration, Finance Officer and Procurement Officer
5/12/2014	Ol'lessos TTI	The Principal, Deputy Principal, Administration Deputy Principal, Academics, Register, Accountant Finance Officer, Accounts Clerk and Procurement Officer
8/12/2014	Nyeri TTI	The Principal, Finance Officer and Procurement Officer
9/12/2014	Rift Valley IST	The Registrar, Deputy Registrar, HoD Electrical Engineering, Finance and Building and Construction team
<p>The above mentioned personnel were interviewed with the view of understanding how the technical institutions manage the implementation of the development projects. In addition to the interviews, the documents reviewed in each institution were contract documents, payment vouchers and certificates, progress reports, minutes of site meeting and BoG minutes.</p>		

Annexure 2: Sources of the audit criteria

- i) TVET Act, 2013
- ii) MoHEST Strategic Plan 2008/2009-2012/2013
- iii) Draft MOEST Strategic Plan 2013/2014-2017/2018
- iv) TVET Strategy 2008/2009-2012/2013
- v) Draft TVET Strategy 2013/2014-2017/2018
- vi) The Public Procurement and Disposal Act, 2005
- vii) The Public Procurement and Disposal Regulations 2006, Classification of Public Procurement Entities
- viii) The Public Procurement Amendment Regulations, 2009
- ix) Procurement Manual for Works by the Public Procurement Oversight Authority, 2009
- x) The Contract agreements between the contractors and the technical institutions
- xi) The Public Financial Management Act, 2012

Annexure 3: Successful projects

Institution	Project	Project cost in Kshs.	Remarks
Gusii IT	1. Library Project	44,466,668	The project has helped to decongest the old library which used to accommodate 120 students, since it can now handle 1000 students in the reading area. In addition the institution generates additional income by renting out part of the space to people to hold functions
RVIST	2. 16 Classrooms	9,950,000	The classrooms helped to decongest the few classrooms that existed in the institution and has also led to the introduction of new courses
	3. Science Laboratory Block	38,628,297	The laboratories have helped to promote training in petroleum and geosciences courses, laboratory sciences, Nutrition and Dietetics, Analytical Chemistry and Applied Biology, Medical Laboratory Technology and Pharmaceutical Technology
	4. ICT classrooms and laboratories	24,949,080	It has helped the institution to digitize most of its data and has increased enrolment in the ICT course
Kisiwa TTI	5. Electrical and Electronics Workshop	46,649,550	The institution received equipment from China which has enhanced quality training
Ol'lessos TTI	6. ICT Classrooms and Laboratories	12,740,735	The availability of ICT laboratories and classrooms has helped to cater for the increasing student population
Coast IT	7. Hospitality complex	58,815,328.60	The project is 100% complete and is being used for the hospitality and tourism courses. It is also being let as conference halls (a source of income)
	8. Sewerage and Drainage	26,572,152.48	More septic tanks and soak pits will enable the institution to manage more waste water and reduced overloading of waste water to the sewerage and drainage system which required frequent emptying
	9. Rehabilitation of workshop & Laboratory for centre of excellence: Perimeter wall – Electrical Installation Works – Rehabilitation of Tourism and	2,377,818.00 5,214,408.20 2,082,476.00	The objectives of the project which was subdivided into three parts were achieved as follows; Perimeter wall – To enhance the institutions security and provide physical boundary Electrical Installation Works – Supply of reliable power to the institution especially to cater to the increased needs in the institution Rehabilitation of Tourism and Hospitality Workshop - Upgrade the existing tourism and hospitality workshop

Institution	Project	Project cost in Kshs.	Remarks
	Hospitality Workshop –		
	10. Construction of Workshop and Laboratories Block	41,188,514.00	The project's objective of upgrading the institution to offer science courses thus construct Biology, Chemistry, Physics and ICT laboratories has been achieved
Rwika TTI	11. Sewerage project	18,482,222	Expansion of sewerage system led to decongestion of the sewerage. It will also be used for irrigation purposes once completed
Meru TTI	12. Electrical & electronics engineering workshop	68,400,534.60	The ADB funded project is complete, equipment have been installed in the workshops and they are fully operational
	13. Expansion of drainage system	25,826,240	The drainage system of the institution has been expanded, its operational and its serving the increased capacity of the institution
	14. Library Complex Project	95,673,593.10	The four storied building though delayed is now complete and there is more library space in the institution to cater for the growing students' population. The institution used to have a small library
	15. Science Laboratory Block	31,703,890	The Science laboratory block is currently being used as a Food Technology laboratory
Thika TTI	16. Rehabilitation of Mechanical Workshop	12,440,664	Institutions' department for mechanical engineering equipment donated to the institution have a workshop that meets the equipment specification for use
Nyeri TTI	17. Rehabilitation of workshops project	10,000,000	Rehabilitation took place as per the donor's specifications, modern equipment were installed and it is fully operational as intended.
	18. Construction of Twin Workshop (Auto & Mechanical Workshops, 4 classrooms and other facilities	35,965,417.20	The project is complete with Auto & Mechanical Workshops, 4 classrooms, teachers' rooms and sanitary facilities all of which are in use
	19. Tuition block phase I	55,414,252	There was need for classrooms due to the increase of enrollment at the institution and tuition block phase I eased congestions of students in classrooms and Laboratory
	20. Tuition block phase II	49,719,122.90	Eased congestion of students in classrooms
Total		711,754,966.98	

Annexure 4: Disbursement of Funds for the Period under Review

Technical Training Institutes			Institutes of Technology		
	Institute	Amount in KShs.		Institute	Amount in KShs.
1	Bumbe TTI	90,093,572	1	Coast I T	126,600,765
2	Kabete TTI	330,448,675	2	Nyandarua IT	85,451,829
3	Kaiboi TTI	160,025,453	3	Mathenge IT	95,933,115
4	Kinyajui TTI	91,650,875	4	Kirinyaga TI	78,421,422
5	Kitale TTI	201,773,310	5	Kiambu IT	109,995,104
6	Machakos TTI	285,525,045	6	Muranga	66,667,860
7	Masai TTI	126,264,168	7	Rwika TI	94,338,684
8	Mawego TTI	54,515,254	8	Friends Kaimosi	90,314,984
9	Meru TTI	309,360,125	9	Rift valley IST	73,832,615
10	Michuki TTI	94,854,430	10	Gusii IT	294,992,695
11	Mombasa TTI	311,154,843	11	Sang'alo	121,754,920
12	Nairobi TTI	201,013,216	12	Siaya IT	51,943,313
13	N'Kabune TTI	78,734,717	13	Moi IT	93,846,488
14	Nyeri TTI	382,986,036	14	Ramogi IAT	148,507,911
15	O'lessos TTI	45,131,940			
16	Rift Valley TTI	257,038,543			
17	Sigalagala TTI	344,202,067			
18	Thika TTI	143,323,802			
19	NEP TTI	280,781,002			
20	Keroka TTI	99,380,236			
21	Bushiangala TTI	97,610,123			
22	Kisiwa TTI	121,523,756			
23	Matili TTI	80,357,229			
24	Shamberere TTI	81,831,692			
25	Wote TTI	70,189,060			
26	Kiirua TTI	71,193,677			
Total		4,410,962,845	Total		1,532,601,706
Average		169,652,417	Average		109,471,550
Range		337,854,096	Range		243,049,382

Note: The above information was for the financial years 2009/2010 to 2012/2013. There was no such breakdown for 2013/2014 financial year.

Annexure 5: Analysis of efficiency in project implementation by technical institutions

	Project Name	Project cost (KShs.)	Project period in weeks	Actual time taken in weeks	Delay in weeks
Poor needs assessment					
1	Nyeri TTI - ESP Twin workshop	35,965,417	48	80	32
2	Ol'lessoss TTI - 6 Classrooms	8,491,665	14	26	Incomplete and delayed by 12 weeks as at Dec 2014.
2	Sub total	44,457,082			
Use of labour contract					
1	Meru TTI - Library Complex Project	95,673,593	71	109	39
2	Nyeri TTI - Tuition block phase II	49,719,123	51	Incomplete as at Dec 2014	131 weeks had elapsed as at Dec 2014
3	RVIST - Library Project	48,232,414	64	176	112 project stalled
3	Sub total	193,625,130			
Alterations of structural specifications in the original design					
1	Coast IT - Rehabilitation of centre of excellence	9,674,702	10	75	65
2	Thika TTI - Construction of workshops and laboratories	25,739,715	24	Stalled as at Dec 2014	118 weeks had elapsed as at December 2014
3	Rwika TI - Twin Workshop, classrooms and other facilities	29,238,993	19	91	72
4	Meru TTI - Science Laboratory Block	31,703,890	16	49	33
5	Meru TTI - Drainage	25,826,240	13	82	69
6	Meru TTI - Electrical and electronic Eng. workshop	68,400,535	52	130	78
7	Sigalagala TTI - Mechanical and Automotive workshop	32,157,869	5	125	73
8	Nyeri TTI - Tuition block phase I	55,414,252	36	57	21
9	Kisiwa TTI - Electrical and Electronics Workshop	40,829,221	40	48	8
10	Kisiwa TTI - Tuition Phase I	22,476,300	36	56	20
11	Ol'lessoss TTI - ICT lab and class rooms	12,740,735	33	49	16
12	RIVST - ICT Centre	24,949,080	30	47	17
13	Gusii TTI - Mechanical Engineering Workshop Ph. I	87,895,031	52	156	104
13	Sub total	467,046,563			
Selection of contractors with capacity constraints					
1	Nyeri TTI - Mechanical Eng. workshop	80,887,787	52	Incomplete as at Dec 2014 (162 weeks elapsed)	110 weeks had elapsed as at Dec 2014
2	Sigalagala TTI - Electrical and Electronics workshop	68,584,117	52	160	108
3	Kisiwa TTI - Tuition Phase II	23,167,909	24	144	120
3	Sub total	172,639,813			
use of restricted tendering instead of open tendering					
1	Coast IT - Hospitality complex	55,959,503	48	86	38
1	Sub total	55,959,503			

	Project Name	Project cost (KShs.)	Project period in weeks	Actual time taken in weeks	Delay in weeks
Mismanagement of project funds					
1	Thika TTI - Classrooms, computer labs & Admin block	18,908,288	41	Stalled as at Dec 2014	No documentation
2	Sigalagala TTI - Tuition Block Phase I	33,179,543	28	153	125
3	Sigalagala TTI - Tuition Block Phase II	27,323,388	Not indicated	Not indicated	Commencement delayed by 136 late as at Dec 2014
4	Rwika TI - Multi - purpose complex	51,435,699	32	164 weeks elapsed as at Dec 2014 and project had stalled	132 weeks had elapsed as at Dec 2014
4	Sub total	130,846,918			
Irregular award of contract					
1	Sigalagala TTI - Renovation of Workshops	10,163,862	24	132	108
2	Sigalagala TTI - Sewerage Project	14,022,668	28	70	42
2	Sub total	24,186,530			
Unfavorable weather conditions due to heavy rains that deterred the process of excavations					
1	O'lessoss TTI - Sewerage Lagoons	13,898,308	30	42	12
1	Sub total	13,898,308			
1	Gusii TTI - Mechanical Workshop, Mechanical and Computer Laboratory	31,728,643	40	43	3
1	Sub total	31,728,643			
Specifications given initially were different from specifications that came with the machines					
1	RVIST - Renovation of Work Shops	10,000,000	Not indicated		Incomplete and delayed by 104 weeks as at Dec 2014
1	Sub total	10,000,000			
31	Grand Total	1,144,388,490			

Annexure 6: Projects indicating lack of economy in implementation

Project Name		Original Project cost (KShs.)	Overall Project cost (KShs.)	Increase in project cost (KShs.)	% Increase
Irregular award of contract					
1	Gusii IT -Construction of Mechanical Engineering Workshop	57,205,559	88,049,920	30,844,361	54%
1	Sub total	57,205,559	88,049,920	30,844,361	
Mismanagement of development funds for projects					
1	Rwika TI- Multipurpose complex	51,435,699			
2	Thika TTI- Classrooms, computer lab and administration block	18,908,288			
3	Sigalagala TTI- Tuition block phase I	33,179,543			
4	Sigalagala TTI- Tuition block phase II	27,323,388			
4	Subtotal	130,846,918			
Restricted tendering					
1	Rift Valley IST- ICT centre	24,949,080			
2	Coast IT- Hospitality complex Phase I & II	55,959,503			
3	Nyeri TTI – Tuition block phase I	55,463,651			
4	Nyeri TTI – Tuition block II	49,719,123			
4	Subtotal	186,091,356			
Variation of works after award of tender					
1	Coast IT - Rehabilitation of centre of excellence: a.Perimeter wall:	2,377,818	2,978,891	601,073	25%
	b.Rehabilitation of tourism and hospitality workshop:	2,082,476	2,156,406	73,930	4%
2	Coast IT - Hospitality Complex Phase I	29,155,388	32,011,214	2,855,826	10%
3	Nyeri TTI - Tuition block phase I - labour only	9,576,436	11,534,092	1,957,656	20%
4	Nyeri TTI - ESP Twin workshop	35,965,417	36,761,573	796,156	2%
5	Kisiwa TI - Electrical and Electronics Workshop	40,829,221	46,649,550	5,820,329	14%
6	Kisiwa TI - Tuition Phase I	22,476,300	25,735,859	3,259,559	15%
7	Kisiwa TI - Tuition Phase II	23,167,909	26,767,908	3,599,999	16%
8	Ol'lessoss TTI - ICT lab and class rooms	12,740,735	14,740,735	2,000,000	16%
9	Gusii TTI - Mechanical Engineering Workshop Ph. I	87,895,031	88,049,921	154,890	0%
10	Gusii TTI - Library Phase II	25,533,518	29,933,518	4,400,000	17%
11	Meru TTI - Library Complex	72,430,170	95,673,593	23,243,423	32%
11	Subtotal	364,230,419	412,993,260	48,762,841	
20	Grand total	634,850,723			

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