

**IN THE THIRD SESSION OF THE SEVENTH
PARLIAMENT OF THE FOURTH
REPUBLIC OF GHANA**

**REPORT OF THE
COMMITTEE ON EDUCATION**

ON THE

**CONTRACT AGREEMENT BETWEEN THE
GOVERNMENT OF THE REPUBLIC OF GHANA
(REPRESENTED BY THE MINISTRY OF EDUCATION)
AND ROBO GROUP T.E.K LIMITED OF ISRAEL FOR
AN AMOUNT OF EIGHTY-EIGHT MILLION, SEVEN
HUNDRED AND NINETY-FIVE THOUSAND, SIX
HUNDRED AND FORTY-FIVE GHANA CEDIS
(GH¢88,795,645.00) FOR THE CONSTRUCTION,
SUPPLY AND INSTALLATION OF EDUCATIONAL
EQUIPMENT AND TRAINING TO TEN (10) REGIONAL
SCIENCE, TECHNOLOGY, ENGINEERING, ARTS AND
MATHEMATICS EDUCATION (STEAM) CENTRES**

1.0 INTRODUCTION

In accordance with Article 181 (5) of the 1992 Constitution and Section 33 (1) of the Public Financial Management Act, 2016, (Act 921), the Hon. Minister for Education, Dr. Matthew Opoku Prempeh presented to the House on Wednesday, 12th June, 2019, the Contract Agreement between the Government of the Republic of Ghana (represented by the Ministry of Education) and Robo Group T.E.K Limited of Israel for an amount of Eighty-Eight Million, Seven Hundred and Ninety-Five Thousand, Six Hundred and Forty-Five Ghana Cedis (GH¢88,795,645.00) for the Construction, Supply and Installation of Educational Equipment and Training to ten (10) Regional Science, Technology, Engineering, Arts and Mathematics Education (STEAM) Centres.

Pursuant to Order 186 of the Standing Orders of the House, the Hon. First Deputy Speaker referred the Contract Agreement to the Committee on Education for consideration and report.

2.0 DELIBERATION

The Committee on Education subsequently met and deliberated on the Agreement. It was assisted in its deliberations by the Hon. Minister for Education, Dr. Matthew Opoku Prempeh, and officials from the Ministry of Education.

The Committee is grateful to the Hon. Minister and the officials for attending upon the Committee.

3.0 REFERENCES

The Committee referred to and was guided by the following documents *inter alia* during its deliberations:

- i. The 1992 Constitution of the Republic of Ghana.
- ii. The Standing Orders of the Parliament of Ghana.
- iii. The Public Financial Management Act, 2016 (Act 921).

4.0 **BACKGROUND**

Since 2003, Ghana's performance in Trends in International Mathematics and Science Study (TIMSS) has indicated a weakness in investigative work, practical activities and ability to comprehend and solve higher order questions among others. This situation is worsened by the lack of a strategic approach to science and mathematics education as well as poor facilities.

Undoubtedly, mathematics has been identified as the bedrock for progress and survival in the modern world. Unfortunately, mathematics has proved to be a great stumbling block in education in the country. As a result, building efficient labour force through well-structured educational pillars has become an issue of importance to Government. Thus, Government, in identifying the ever-increasing influence of technology in the daily facets of life including education, intends to leverage technology advancement to popularise the teaching and learning of mathematics, demystify mathematics, and turn the country into a mathematics-friendly nation. Leveraging the technological advancement in learning methodologies would also expose school children to modern interactive and learning environments with emphasis on advanced technology in the field of Science, Technology, Arts, Engineering and Mathematics (STEAM).

Pursuant to the above, Government entered into a Contract Agreement with Robo Group T.E.K. Limited for the construction, supply and installation of Educational Equipment and Training to ten (10) Regional Science, Technology, Engineering, Arts and Mathematics Education (STEAM) Centres.

5.0 **PROJECT SCOPE AND OBJECTIVE**

The objective of the Project is to support Government's policy to improve on the quality of mathematics and science teaching and learning methodologies. The scope of work comprises the construction, supply, installation of educational equipment and training for ten (10) Regional STEAM Centres.

6.0 PROJECT COST

The cost of the project is Eighty-Eight Million, Seven Hundred and Ninety-Five Thousand, Six Hundred and Forty-five Ghana Cedis (GH¢88,795,645.00). This is inclusive of delivery and installation of educational STEAM equipment, training and taxes. Specifically, the Project will cater for the following:

- a. The construction of ten (10) Regional STEAM Centres.
- b. Supply and installation of STEAM equipment to the ten (10) Regional STEAM Centres.
- c. Organisation of National Virtual Robotics and Coding Competition.
- d. Assessment of STEAM pedagogical Managers.
- e. Pedagogical training programmes for Managers of the STEAM Centres.
- f. STEAM teacher training.
- g. Mentoring and integration.
- h. License for the STEAM cloud based on robotics coding curriculum.
- i. Provision of STEAM Learning and Curriculum Management Systems (LMS).

7.0 AIMS OF THE PROJECT

The aims of the Projects are to:

- i. Construct ten (10) Regional STEAM Centres.
- ii. Expose school children to modern interactive learning environments.
- iii. Learn the use of advanced technology in the field of STEAM.
- iv. Ensure that cognitive and motor skills of students are developed as they work through activities that stimulate creativity, curiosity, and problem solving abilities.
- v. Revive interest in science and mathematics education at the secondary levels.

8.0 **OBSERVATIONS**

8.1 Importance of STEAM

The Committee observed that STEAM education is typically based on finding a solution to a real life problem. It is planned and designed both in architectural and in pedagogic terms to cater for as many students in schools as possible. Thus the STEAM Centres will be interactive Centres that will enrich the academic contents offered by the formal training for students between the ages of 5 and 18.

According to the Ministry, the Centres will offer a variety of selected interactive learning environments with a large range of topics including science and technology, engineering, mathematics, robotics, among others for students in public secondary schools in the country. The Centres will also offer a wide range of courses, classes, and workshops for all students including adult training who will serve as teacher trainers.

The training programmes will enable Ghanaian students to compete globally in STEAM-related jobs after completion of their programmes, and also ensure that students are sufficiently prepared to take advantage of STEAM-related careers such as computing, engineering, physical sciences, life sciences, mathematics, innovators, educators, researchers and leaders, among others which are becoming the less preferred choices of students.

8.2 **IMPLEMENTATION PLAN**

In line with the construction and the educational works for the ten (10) Regional STEAM Centres, the Committee observed that the following will guide the implementation plan:

- Construction of the ten (10) Regional Centres;
- Production and supply of accessories and equipment;
- Development of the content of the curriculum;
- Sequencing and quality assurance of the curriculum; and
- Training of teachers.

It is estimated that once funds are made available, the implementation of the Project would take a total of two (2) years to complete.

9.3 Options and Impacts Considered

The Committee noted that the Ministry of Education considered two (2) distinctive policy options for the provision of the STEAM programme. The options are as follows:

i. **Option 1** – *Provision of Curriculum and Training of Teachers across the Country*

Option 1 proposes to deal with the challenges in primary, JHS and SHS in the teaching and learning of science and mathematics. This will concentrate on only the development of curriculum and the training of teachers in the field of science and mathematics. In this regard, the construction of facilities at the ten (10) Regional STEAM Centres will not be part of the exercise but rather, focus on the software of the STEAM.

The Committee was informed that Option 1 will demystify the difficulty in the teaching and learning of science and mathematics in schools. However, the exclusion of the construction of the facilities will not meet the project requirements.

ii. **Option 2** – *Construction and Educational Works for ten (10) Regional STEAM Centres*

Option 2 involves the construction and educational works for ten (10) Regional STEAM Centres. The Regional STEAM Centres shall specify the training programme including the programme objectives, course highlights, curriculum, success indexes, and the implementation plan. 20Ten (10) teachers from each Centre (totalling 100 teachers) will be trained in the subject they teach.

The Committee noted that Option 2 is in line with the Ministry of Education's aim of improving the teaching and learning of science and mathematics. The Ministry informed the Committee that the implementation of Option 2 will ensure that teaching and learning of science and mathematics is accessible to students nationwide and also further encourage the learning of science and mathematics.

Taking cognisance of its aim therefore, the Ministry settled on Option 2 as the programme for the Project.

9.4 Construction of STEAM Centres

As indicated earlier, one of the objectives of the Project is the construction of ten (10) Regional STEAM Centres. It came to the attention of the Committee that with the number of Regions of the country now totalling sixteen (16), some Regions will not benefit from a STEAM Centre.

The Committee was informed that Cabinet has directed that the initial 10 Regional Centres should be considered as Phase 1 of the Project. The Centres should be constructed in the six (6) new Regions (Oti, Bono East, Western North, Ahafo, Savannah and North East), Upper West, Upper East, Northern and Volta Regions.

To this end, the Ministers for Education and Finance have been tasked to take steps to initiate the second phase of the Project which would also comprise 10 STEAM Centres for the remaining Regions. The selection of the locations for the second phase should take into account, the population and social dynamics of the Regions in order to ensure equity.

9.5 Procurement Process

The Committee noted from a communication dated 30th November, 2018 and 15th March, 2019, issued by the Central Tender Review Committee of the Ministry of Finance to the Ministry of Education that an International

Competitive Tendering process was undertaken to identify a competent service provider for the Project.

Following the tendering process, the Ministry of Education sought the approval of the Public Procurement Authority to engage ROBO Group T.E.K. Limited of Israel for the construction and educational works for the ten (10) Regional STEAM Centres.

9.6 Approval by the Minister for Finance

The Committee noted that by a letter dated 8th June, 2018, the Ministry of Finance granted approval to the Ministry of Education to commit the Government of Ghana to this multi-year expenditure. Thus, the provisions of Section 33(1)(a) of the PFM Act, 2016 (Act 921) has been satisfied.

9.7 Value for Money Audit

The Committee enquired whether value for money audit was carried on the Contract.

The Committee was informed that value for money audit has been conducted by Crown Agents.

8.0 **CONCLUSION AND RECOMMENDATION**

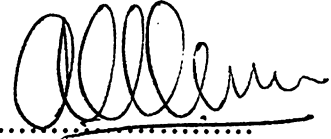
The benefits that would be derived from the implementation of the STEAM Project, particularly the construction of Regional STEAM Centres that will offer a wide range of courses, classes, and workshops for all students including adult training cannot be overemphasised. The Committee, having carefully examined the Contract Agreement, recommends to the House to adopt its report and approve by resolution, the Contract Agreement between the Government of the Republic of Ghana (represented by the Ministry of Education) and Robo Group T.E.K Limited of Israel for an amount of Eighty-Eight Million, Seven Hundred and Ninety-Five Thousand, Six Hundred and Forty-Five Ghana Cedis (GH¢88,795,645.00) for the Construction, Supply

and Installation of Educational Equipment and Training to ten (10) Regional Science, Technology, Engineering, Arts and Mathematics Education (STEAM) Centres in the country.

Respectfully submitted.



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STEVENS SIAKA (HON)
(CHAIRMAN, COMMITTEE ON
EDUCATION)



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ABIGAIL ABA ANSO
(CLERK TO THE COMMITTEE)



JUNE 2019