



# VIVO ENERGY ABCDE BREAKFAST MEETING ON EDUCATION

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THEME: PROMISE OF E-LEARNING TO STEM EDUCATION IN GHANA  
(WITH FOCUS ON GIRLS IN STEM)

Venue: British Council | Date: 18<sup>th</sup> February 2020



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## Background

The breakfast meeting on education was organised by ABCDE with support from Vivo Energy under the theme; **‘Promise of e-learning to STEM education in GHANA with focus on girls in STEM’**. The programme aims to encourage more private sector participation in education especially in the promotion of STEM education amongst girls. The breakfast meeting was organized to discuss new methods and incentives to adopt to make the study of STEM-related courses more attractive to girls. The breakfast meeting also aimed at creating awareness of digital learning as well as discussed solutions to current defects that exist within the Ghanaian educational system.

## Welcome address by Dr. Ekow Spio-Garbrah

Dr. Ekow Spio Gbrah began his welcome address by lamenting that despite the importance of science, technology, engineering and mathematics (STEM) to development, it is not a subject enough attention has been paid to Ghana, adding that ‘even more worrying is that only a few women are in the field’. He hoped that the conversation begun by ABCDE will inform national policy and contribute to finding solutions to make STEM more attractive to young people especially girls.

## Address by UNESCO Country Representative

Mr. Abdourahamane Diallo, the UNESCO Country Representative expressed his delight with the theme of the meeting, emphasizing that it resonates with UNESCO’s mission, vision and work in Ghana and Africa. He stated that as part of activities in promoting education in Ghana, UNESCO joined the Ghana National Education Campaign Coalition to celebrate the International Day of Education in Ghana. He noted that UNESCO is committed to contributing to advance the development of girls and women in STEM education globally.

Mr. Diallo explained that UNESCO’s priority of gender equality Africa has been demonstrated by sponsoring several female scientists to conduct various researches of which 3 have received the Nobel Science Prize. According to Mr. Diallo, the following programmes of UNESCO are worthy of mention;

1. UNESCO Prize for Girls and Women in Education

This programme aims to award individuals, institutions and organizations who are making outstanding and innovative UNESCO STEM and Gender Advancement Programme, aimed at reducing gender inequality in STEM. The programme also aims to analyse how policy affects women in STEM in Africa and was piloted in Gambia and Sudan.

2. STEM Conference for West Africa
3. UNESCO H&A

The project which is being implemented in Ghana aims to use a gender-responsive approach in the teaching of STEM to make it more attractive to girls. As part of the programme activities, UNESCO organizes STEM Clinics in 3 District Assemblies where 200 girls are selected from Basic and Junior High Schools in Ghana to participate in the training.

Mr. Diallo concluded by stating that, “the world needs STEM and STEM need more girls”.

## Panel Discussion

### Panellists

1. Mr. Ben Hassan Ouattara, Managing Director, Vivo Energy Ghana
2. Dr. Thomas Amatey Tagoe, Neuroscientist, Co-founder of Gh Scientific
3. Petra Aba Asamoah, ABCDE Mentor and Board Member
4. Melody Boateng, UNESCO National Professional Officer

### Summary of Panel Discussion

An initiative by panellists’ organisations within the STEM space

#### **VIVO Energy**

VIVO Energy is a multinational company that markets Shell products in Ghana and is committed to the achievement of the Sustainable Development Goals. Mr. Ben Hassan Ouattara stated that VIVO Energy believes in giving back to society not only through providing quality product and services but also putting in place sustainable development initiatives especially in the area of education. ‘The oil and gas industry relies heavily on STEM and therefore it is in the interest of the industry to promote STEM education in Ghana, hence, the partnership with ABDCE’, he stated

## **ABCDE**

ABCDE provides a platform for a solution-oriented conversation on STEM education to be had to influence national discussion and policy formulation. ABCDE has put in place initiatives to make STEM more attractive to children especially girls, one of such initiatives is the Mentoring Programme for girls. ABCDE has begun a project that seeks to create animated scientific content for children to demystify science and to make the learning of science fun.

## **Gh Scientific**

As part of his work with GNAT, Dr. Tagoe runs a mentoring platform which allows children to meet and interact with scientists. He also collaborates with other organisations to put more science content in the media space to help increase the appreciation of STEM. A new programme called GH4STEM Campaign has recently been launched targeted at recognising teachers using innovative methods in teaching science.

## **UNESCO**

UNESCO is very intentional in promoting women as role models. Example of this is that UNESCO has been intentional and consistent with appointing women as Director-General for its department responsible for science. UNESCO has instituted an award scheme for young scientists who work in the biodiversity and environmental conservation field. This, according to Melody Boateng, is geared towards achieving 51% female representation in the field. UNESCO is committed to promoting the involvement of women in the STEM space nationally and globally, she added.

## **Key Challenges to Promoting Women in STEM**

**Ms Asamoah:** Gender stereotyping and traditional social roles is an impediment to the promotion of STEM especially to young girls. To address this stereotyping, effort must be made to go beyond policy to re-orient families to reform the traditional forms of socialization as well as provide mentorship to girls to realise that they are not limited by their sex. He also added that e-learning platforms should be used as tools to reach the masses

**Dr. Tagoe:** Studies have shown that children between the ages of 3 and 5 have the same abilities, however, due to socialization this tends to change as they progress academically.

**Ms Boateng:** According to her, inadequate financing for programmes and initiatives that promote STEM is a major challenge. She emphasised the need for increased financing to support science

education. She also indicated the need for tools to make science more practical for easy understanding. She advocated that the Government should commit 1% of GDP to support STEM education in Ghana.

Ms Boateng further added that women are already engaged in domestic science application. What is therefore needed is to enlighten girls about the available options in science that may be available. As part of providing a solution to this challenge, UNESCO will be organising a science and innovation fair that is expected to attract and introduce young people to opportunities within the industry, she added.

**Mr. Ouattara:** According to Mr. Ouattara, the private sector is the final beneficiary of STEM training and therefore need to be more involved. Vivo Energy is, for example, allowing stem students to have internships with the organization. He added that last year, Vivo Energy initiated a STEM recruitment campaign which received 7000 application out of which 16 were employed, indicating that the best candidate was a female that heads the Analytics Department.

## General Contributions

- **Madam Olivia Opare, Director of Science, Ghana Education Service: -**  
GES has established a National Science Resource Centre in an attempt to improve science education and to make it more practical. The Resource Centre is located at Cantonment in Accra and is opened to all basic and senior high schools
- **Kingsley Boakye, Research Officer, Ministry of Education:**  
The Ministry has made the new science curriculum more Gender-Sensitive. The Robotics Training Initiatives is training girls in robotics at senior high schools, with some beneficiaries being given scholarships to further their education in STEM.
- **Daniel Afedu, GNAT:**  
GNAT has a female branch called GNATLAS, who are responsible for promoting science and make it more practical
- **Forces Senior High School, Headmaster:**  
A forum must be created to allow more tutors to join the national discourse on science education.

- Efua Gabrah - Sarfo- Volta River Authority:  
Parents and teachers on the need to be engaged due to their influence on children to help inculcate the love of science in kids.
- Mr. Forster, Achimota School:  
Children at the pre-school level must be targeted and encouraged to experiment with science to get them interested before primary school
- Dr. Aramansa Bano:  
There must be a change in the status quo around gender roles by providing role models to mentor girls.
- Josephine Kafui Tetteh:  
There is the need to re-orient the minds of people and children towards STEM.
- Emilia Ahadzi:  
More men need to be encouraged to mentor girls in science.

## Key Recommendations

1. **Role of Parents:** Parent as the first point of contact for children especially during their formative years. They must therefore be sensitized to avoid stereotyping and raising their children according to traditional gender roles to encourage children to experiment without any restriction because of their sex.
2. **Early Childhood Education:** Government must take a keen interest in early childhood education since the formative years of children are critical in their academic development.
3. **Secondary School Education:** The science curriculum at the secondary level should be as practical as possible. The Government must provide the necessary facilities and tools needed for experiments and hands-on practical education. This will help make STEM attractive to both male and female students.

4. **Curriculum Development:** A new curriculum needs to be developed to meet the needs of the future generation and the fourth industrial revolution to ensure Africa is not left behind.
5. **Partnerships:** There must be a partnership between academia, private sector and government to ensure a linkage between the educational curriculum to industrial need and the nation's developmental agenda.
6. **Digital Learning:** Parents, teachers, and policymakers should explore and take advantage of the available e-learning opportunities a supplementary teaching tools to traditional teaching methods.
7. **Funding:** Government should provide incentives such as scholarships and awards to STEM students, especially females who excel in the field. Innovative funding schemes for STEM-related research and training should be explored through a Government-Private Sector partnership.

#### Annexe: Links to Media Reportage

1. <https://www.myjoyonline.com/news/2020/February-21st/vivo-energy-abcde-hold-maiden-breakfast-meeting-on-education.php>
2. <https://www.ghanaiantimes.com.gh/stakeholders-urged-to-promote-stem/>
3. <https://dailyguidenetwork.com/private-sector-must-get-involved-in-stem-education-vivo-energy-boss/>