Increasing girls’ participation in STEM education in Ghana

Regional Meeting on Gender Assessment in Teacher Education in Asia
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Outline of Presentation

• An overview of girls’ participation in STEM education in Ghana
• Key issues hampering progress
• National strategies
• Promotion of STEM under the HFIT Project
  - The strategy
  - What happens at the clinics
  - Next steps
2016 SENIOR HIGH SCHOOL EXAMS. SCIENCE CANDIDATES

<table>
<thead>
<tr>
<th>Subject</th>
<th>% Female</th>
<th>% Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>60</td>
<td>40</td>
</tr>
<tr>
<td>Chemistry</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>Gen Agric</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Physics</td>
<td>30</td>
<td>70</td>
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<tr>
<td>Animal Husbandry</td>
<td>20</td>
<td>80</td>
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<tr>
<td>Crop Husbandry</td>
<td>20</td>
<td>80</td>
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<tr>
<td>Fisheries</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Forestry</td>
<td>10</td>
<td>90</td>
</tr>
</tbody>
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Senior High School pass rates at credit in core subjects by gender, 2015 (Source: ESPR 2016)

- **English**: 50.2% M, 50.4% F, 50.3% T
- **Mathematics**: 27.4% M, 21.3% F, 24.4% T
- **Integrated Science**: 26.7% M, 20.2% F, 23.6% T
- **Social Studies**: 54.0% M, 49.6% F, 51.9% T
Key issues hampering progress for girls’ participation in STEM

- Gender stereotyping: socio-cultural beliefs about girls’ inability to study STEM;
- Inadequate citizens’ awareness of the importance of STEM;
- Theoretical/unfriendly and gender insensitive teaching methodologies;
- Absence of clear policy guidelines on gender in the education sector;
- Lack of capacity (funding and competent staff) by the Girls’ Education Unit (GEU) and Science Education Unit (SEU) to play their mandated roles effectively;
- Limited intersectoral collaboration among the various govt ministries and agencies in the promotion of girls’ education (eg. MOE, MESTI and Min. of Gender);
The national strategy for the promotion of STEM

- The Science, Technology and Mathematics Education (STME) Clinic was instituted by the Ghana Education Service in 1987;

- Establishment of the Girls’ Education Unit in 1997. The Unit has been working towards non-discriminatory enrolment in education, and general reduction of gender disparities in the education sector.

- Establishment of Science Education Unit.
Promotion of STEM education under the HFIT Project in Ghana

The Strategy:

• Identify 3 districts for an intervention;
• Conduct a baseline study in the target districts;
• Implement key STEM activities in the target districts. e.g. STEM Clinics;
• Monitor and systematically collect data on the results;
• Document the results, challenges and lessons learnt for sharing with government, CSOs and development partners for advocacy, replication and scaling up.
What has been done so far under the HFIT Project?

• *STEM Baseline study conducted in 3 districts;*

• *STEM Clinic organized in two districts (Jasikan and Atiwa);*

• *400 girls have participated in the clinics so far.*
What happens at the STEM Clinics?

- Experience sharing by young prominent female scientists/role models.
- Practical sessions to demystify STEM.
- One-on-one interaction between the girls and the female scientists.
What happens at the STEM Clinics?

• Participants measuring the mass of the an irregular object;

• Participants undertaking a practical activity in physics at Atiwa.
Next steps

- Provision of technical assistance to MOE and UNICEF to ensure completion and passage of the draft Gender in Education Policy.
- Working with Plan International Ghana to scale up the STEM clinics to more districts;
- Monitoring and systematically collecting data to measure project results;
- Documentation of results, challenges and lessons learnt.
Thank you

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