



**The 8th biennial African School of Fundamental Physics and Applications,  
July 7-21, 2024  
Cadi Ayyad University, Marrakesh, Morocco**

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# **ELIMISHA MSICHANA ELIMISHA JAMII (EMEJA) PROJECT**

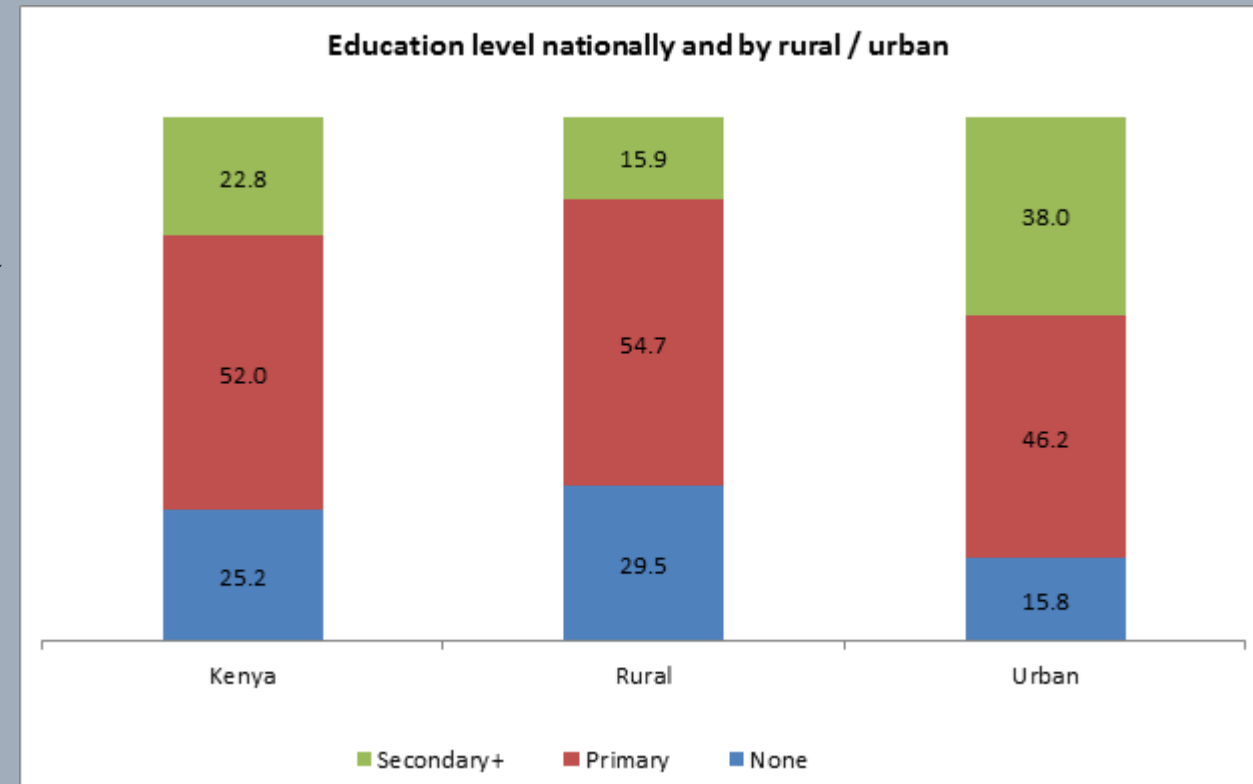
**Dr. Ann Njeri<sup>1</sup> & Tabitha Alango<sup>2</sup>**

1. Founder and Director, EMEJA

2. Project Manager, EMEJA

# Background

- **Only 18%** of Kenyan women aged 25+ have completed secondary education with ~49% of the female youth (15-24) population considered illiterate.
- 86.5% of girls aged 9-13 years live in rural Kenya with **80.8%** of them attending primary school but only **14.3%** enrolling for secondary.
- **68.6 %** of girls in the same age bracket in urban areas complete primary education with 27.8% enrolling for secondary education.
- **About 20%** of female pupils who sat for their KCPE in 2015 failed to enrol in secondary schools in 2016.



Retrieved from: SID Forum (2013)

# Challenges Faced by Girls in Rural Areas

- Teenage Pregnancies
- Early marriages
- Poverty
- Lack of outreach, leadership, and mentorship programs for young school girls



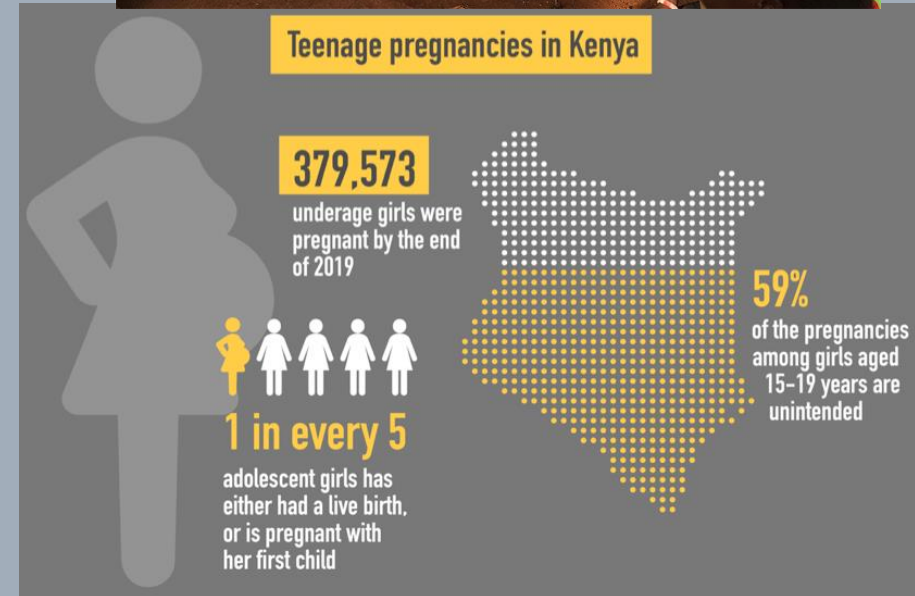
Retrieved from: Munllonch (2023)



**africanews.** EN NEWS

NEWS BUSINESS SPORT CULTURE SCIENCE & TECHNOLOGY NO COMMENT PROGRAMMES CORONAVIRUS

**Close to 4,000 school girls impregnated in Kenya during Covid-19 lockdown**



Retrieved from:CGTN Africa (2023)

# About EMEJA

- Elimisha Msichana Elimisha Jamii na (EMEJA)- Swahili for ‘educate a girl child, educate the entire community
- Founded in 2019 by Dr. Ann Njeri
- Implemented in Kitale, Murang’a, and Kibera in Kenya and Isidingiro in Uganda

**Mission:** Ensure 100% transition of girls from primary school to secondary school

- **Vision:** Address socio-economic challenges affecting girls’ education in rural areas in Kenya and Uganda using Astronomy-themed events and activities



**Dr. Ann Njeri, EMEJA’s founder and Director  
-Asp2016 Cohort  
-Current: PDRA in Extra galactic Astrophysics at Newcastle University**

# EMEJA's Programs

I. Outreach  
and  
Mentorship

II. Tracking  
and Long-term  
Monitoring

III. Tuition  
Fees  
Scholarships

IV. Astro-STEM  
Workshop &  
Mentorship

V. Computer  
Literacy

# Mentorship and Outreach

- Targeted for primary school girls aged 12-16 years (Grade 6-8).
- Visit to primary schools, engaging the community (the pupils, their teachers and parents) in roundtable discussions addressing the socio-economic
- ~20 Schools
- Each girl in the final year is paired with an EMEJA mentor.
- More than 2000 girls reached since 2019



# Long-Term Tracking and Monitoring

- Long term mentorship through secondary school ~ 4 yrs
- Through Phone calls and one on one/ 3 x per year
- Over 1000 girls currently being tracked



# Tuition Fees Scholarship

- Targets girls (EMEJA Mentees) from economically disadvantage backgrounds
- Secondary tuition fees 80 per year
- Working with local day secondary schools
- 8 students currently being supported





# Astro-STEM Workshop and Mentorship

- Aimed for secondary schoolgirls in Year 1 & 2
- Objectives:
  - Encourage and facilitate early participation of girls in STEM
  - Increase the number of girls selecting Physics in Year III and sits for the KNEC Physics exams
  - Create resources/infrastructure for the Physics laboratory (schools underfunded and underdeveloped)



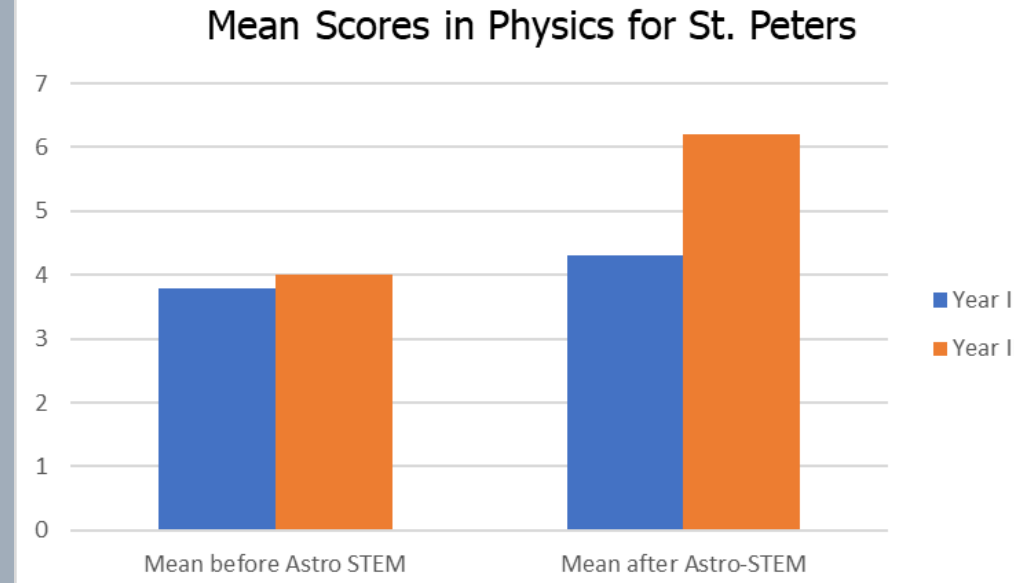
# Astro-STEM Workshop and Mentorship

- Two-day workshop (4 sessions):
  - Hands-on physics practical
  - Geography/Astronomy session
  - Introduction to computers
  - Mentorship and Career guidance
- 5 Secondary schools enrolled under the program



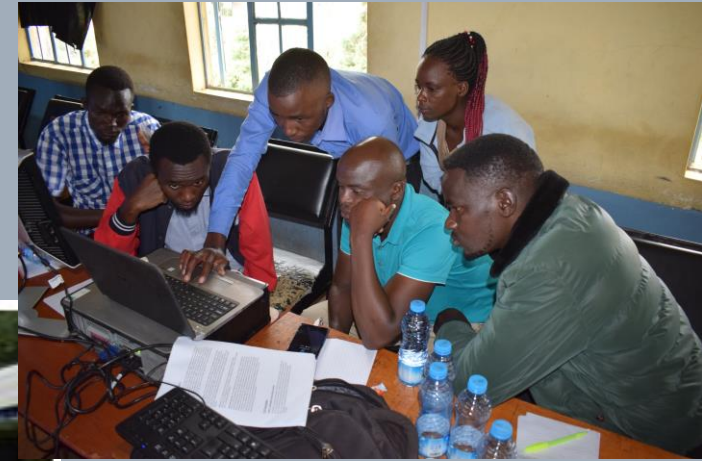
# Program Impacts

- Over 1000 students engaged since 2021
- Physics laboratory equipment including meter rules, voltmeters, ammeters, beakers, electronic weighing balance, ripple water tank, etc. donated to schools
- Increase in number of students selecting physics at Form 3
  - Number of girls selecting Physics in the coming Year III (2024) by the Year IIs, increased from 9 in 2022 to 13 in 2023
- Improved performance (mean scores) in physics after workshop
  - St. Peters (end of 2023)-Physics was the best performing subject in Year II
  - An overall positive attitude towards Physics and increased enthusiasm among the students.



# Astro-STEM Workshop and Mentorship (For Teachers)

- Created a similar workshop for the teachers in the Astro-STEM Programme
- Funded by the IAU-OAE under the Teacher Training program 2023
- Targeted ~20 secondary school teachers in the same region/schools
- Objectives:
  - Enhance secondary school Physics and Geography teachers' understanding and delivery of basic Astronomy topics
  - Foster an appreciation for Astronomy and its relevance in everyday life



# Computer Literacy

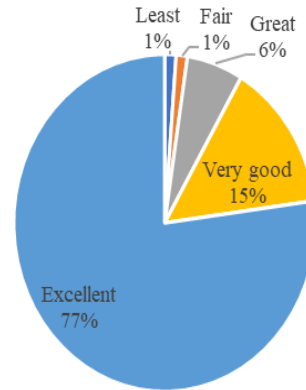
- Aims to
  - introduce the students computers
  - Creating resources for the schools to facilitate teaching of computer studies
- Donated a total of 20 computers to the participating schools since 2021



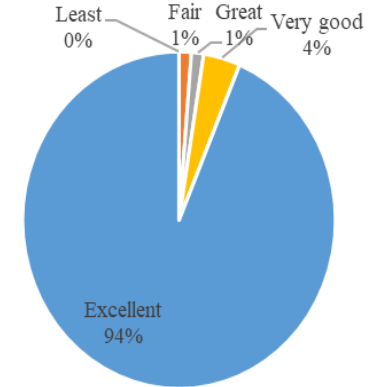
# Program Impacts

- Two out of the five participating schools have set up computer laboratories and introduced computer lessons
- Improved levels of computer literacy among the students

List any Parts of a Computer (Before Astro-STEM)



List any Parts of a Computer (After Astro-STEM)



# A Team..



*Mrs. Ann Mwachira*  
Human Resources, PHD

*Rash Mweni*  
PUBLIC Education

*Rash Mwachira*  
Mentor



*Aurelia Anyang*

*Felicia Ombani*

*Zola Ombani*

*Wanda Mwakisi*

*Dorcas Kibugi*

+++++.....



*Nancy Mathis*  
Mentor

*Mary Mwakil*  
Mentor

*Risper Kamau*  
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MBA/BA Educ

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# Acknowledgement





# Connect with Us



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