

**REPORT ON THE IVVN AFRICAN SCHOOL OUTREACH PROGRAM (ASOP)
SCIENCE FESTIVAL (SciFest2023) HELD IN NAIROBI AND KAJIADO
COUNTIES, KENYA - 10-15TH JULY 2023**



Ms. Susan Njuguni of National Museums of Kenya assisting the students during the hands-on vaccination screening experiment

JULY 2023

Acknowledgements

The African ASOP team greatly appreciates the financial support provided by IVVN to support the science outreach activities delivered during the SciFest2023 festival in Nairobi and Kajiado Counties Kenya.

The team is very grateful for the support and facilitation provided by the County Director of Education and the Ministry of Agriculture, Livestock and Fisheries, Kajiado County. We greatly appreciate the partnership and look forward to working together to improve the livelihoods of communities in Kajiado.

We wish to sincerely thank Mr. Raphael Shololoi, Livestock Officer, Kajiado County, who assisted us with identifying the schools and the women group.

To all the lovely students we interacted with, we say thank you for the kind and welcoming gestures, enthusiasm and enriching interactions. You give us a lot of hope and inspiring. Keep up the positive attitude.

To the administration of all the four schools we visited, we are grateful for the warm welcome and value your partnership. Looking forward to many more opportunities to partner, empower our students and grow STEM in Kenya.

Keep up the good work Ladies, your mentorship is making needed by our little sisters.

Background

One of the objectives of the International Veterinary Vaccinology Network (IVVN) is to promote gender equity in veterinary vaccinology through empowerment, mentorship, career guidance and advocacy of young upcoming scientists in a gender responsive manner to bridge the opportunity gap and create a more diverse and inclusive education, research and science careers. To strengthen and advance this mission of mentoring and empowering Africa's future leaders and experts in STEM, the ASOP team of scientists held an outreach festival (SciFest2023) in Kenya from 10th-15th July 2023.



The women scientists pose for a photo at Ibbissil Girls Secondary

During the outreach, the team engaged and empowered a total of **480 students comprising of 443 girls and 37 boys** from three girls and one mixed secondary school. They also trained 51 women belonging to a pastoralist women group to build their capacity in knowledge and skills applied to control of animal and infectious diseases using vaccination to achieve positive livelihood outcomes and wholesome community development. During the activities, they also engaged the learners and the community in tree planting to empower the pastoralist community

in environmental conservation in the face of climate change. These strategic efforts will directly contribute to achievement of SDGs 1-5 and 13.

Preparations and packing

On the 10th of July 2023, the team of women scientists that included ASOP coordinators from Nigeria, Dr. Deborah and Dr. Glory Mbah from Cameroon met at the Department of Biochemistry, University of Nairobi to prepare the reagents and pack materials for the weeklong outreach.



Preps and packing for the outreach

Delivery of the rabies vaccinology experiment at Embakasi Girls High Schools in Nairobi

A team of ten (10) women facilitators composed of scientists from the University of Nairobi, Kenya Agricultural and Livestock Research Organization (KALRO) and the National Museums of Kenya (NMK) visited Embakasi Girls High School on 11th July 2023. They facilitated the rabies vaccination testing experiment 120 girls and 10 teachers. At the time, they motivated and inspired the girls by sharing their career and success impact stories through motivational talks.

They also empowered about 30 students and teachers in learning



Ms. Gracie of KARLO, assisting the students during the rabies experiment packing for the outreach

technologies applied in urban farming. Together with the students, they set up two vertical vegetable gardens at the school.



Left: Dr. Kilalo and Dr. Tende assisting students in setting up vertical vegetable gardens

Right: A student preparing to plant a tree

participate in global environmental conservation efforts by planting trees to mitigate against adverse effects of climate change.

Most of the students engaged found the engagement to be fun, enjoyable, inspiring, informative, interesting, exciting and rewarding. The teachers particularly liked the fact that the workshop was well organized, hands-on and motivational/ career guidance talks.

Certificates were awarded to all participating students.

Quote from a student in Embakasi Girls:

“I am well pleased with everything that has happened today and that you guys are the best and should always keep on motivating young scientists like us not only at Embakasi Girls but also other schools”



Embakasi Girls pose for a group photo after the award of certificates

Delivery of the rabies vaccinology experiment at Senior Chief Rissa Secondary School, Kajiado, County

On the 12th of July, the team of 10 scientists visited Senior Chief Rissa mixed Secondary School in Kajiado County and empowered 83 girls, 37 boys and 5 teachers.



ASOP facilitators at the beginning of the workshop at Senior Chief Rissa Secondary School in Kajiado.

They took the students through the interactive hands-on mock experiment to test for vaccination against rabies.



Some Senior Chief Rissa students showing their group work on vaccines and their application in control of infectious diseases



Group photo of facilitators and some of the students at the end of the workshop



Facilitators and students during the tree planting ceremony at Senior Chief Rissa Secondary School

Most students at Chief Rissa Secondary School found workshop to be enjoyable, fun, surprising, interesting, inspiring, challenging and rewarding. Almost all the students reported that women could be scientists. The teachers particularly liked the way everything was articulated including awareness on science careers. Certificates were awarded to all participating students.

Quote from a participating student: “I feel so inspired, I have met with very intelligent ladies and mother from our own country and outside, assuring that education can take me far. I Doctor Christine Sabaya”

Capacity building of farmers and extension officers on climate smart agriculture and livestock production – 13th July 2023

On 13th July, the team of facilitators engaged and empowered a pastoralist women group of 51 women and four (4) men to build the capacity in livestock production and animal disease control using.

The pastoralists were trained on climate smart vegetable vertical garden farming, cultivation of drought-tolerant grasses and potting of tree seedlings.



Facilitators pose for a group photo with Emirishoi women pastoralist group



The pastoral women planting vegetables and potting tree seedling bags during the capacity building activity

An early outcome of the empowerment and interaction with the group was that a group of 25 young mothers and 6 men approached us requesting that we assist them in joining adult and continuing education.

They desire to resume schooling and finish their basic education. They therefore requested us to assist in whichever way to help them fulfil this desire. A list of the mothers is appended.

Delivery of the rabies vaccinology experiment at Ilbissil Girls Secondary School, Kajiado, County

On the 14th of July, the scientists engaged and delivered the mock rabies vaccination testing experiment at Ilbissil Girls. They mentored 120 girls and seven teachers.



The women scientist in a team work session before the start of the workshop at Ilbissil Girls school



Ilbissil girls performing the mock rabies vaccination experiment

The workshop was also crowned with a tree planting ceremony involving students, facilitators and teachers. Feedback received from the students indicate that the students greatly enjoyed the workshop, they found it interesting, informative, exciting and inspiring. All reported that women could be scientists.

The teachers like the workshop particularly because it was interactive, inclusive, relevance to a common vaccination issue and it gave the students an opportunity to do hands-on experin delivery.



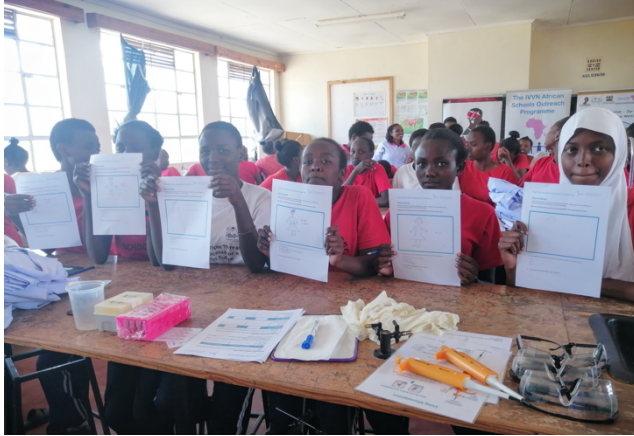
Ms. Susan assisting the during the mock rabies vaccination experiment

Quote from a student:

Today was the best day ever. I have liked the group of ladies who have motivated me. I like all of them and I aim for an A grade so that I can go to the University of Nairobi or even in Cameroon or in Nigeria. I have a negative attitude in Chemistry but now am relieved. I think next year KCSE examination, I will get an A from my sciences: Physics and Chemistry. I think the ladies are my mentors”

Delivery of the rabies vaccinology experiment at Sajiloni Girls Secondary School, Kajiado, County

On the 14th of July, the scientists engaged and delivered the mock rabies vaccination testing experiment at Ilbissil Girls. They mentored 120 girls and one teacher.



Students at Sajiloni girls display their drawings of a 'Scientist'



Dr. Virginia with students during the bioassay session



Sajiloni girls engaging Dr. during 'meet the scientist' session



Group photo at the end of the 1st engagement session

The Sajiloni girls reported that they found the workshop to be fun, enjoyable, interesting, exciting, informative and rewarding. All reported that women could be scientists. The Science teacher who participated in the session reported liking the course content, structure and the facilitators' ability to mingle and advice the Kenyan girl on attitude change towards STEM subjects.

Facilitators

- 1. Dr. Esther Kanduma (UoN/KeAWARD)**
- 2. Dr. Dora Kilalo (UoN/KeAWARD)**
- 3. Dr. Virginia Wangondu (UoN/KeAWARD)**
- 4. Ms. Susan Kabacia (NMK/UoN/KeAWARD)**
- 5. Dr. Deborah Funmilayo (University of Ibadan, Nigeria)**
- 6. Dr. Glory Mbah (University of Bameda, Cameroon).**
- 7. Dr. Felisters Nzuve 9(UoN/KeAWARD)0**
- 8. Ms. Grace Kiruki (KALRO, UoN)**
- 9. Ms. Celestine Makokha (KALRO)**