

Report of Science day activities at the African Institute for the Mathematical Sciences (AIMS Rwanda), Centre of Excellence.



I. Introduction

Science day activities at AIMS Rwanda were organized by students, alumni and lecturers of AIMS Rwanda. The event was conducted on two consecutive days. On the first day, they performed an interesting conference which started from 6:30 pm to 8:00 pm with the main topic: “AIMS Impact on the development of scientific culture in Rwanda”. The conference was attended by a number of guests coming from different institutions as well as organizations and some RAWISE members were among them. On the second day, an outstanding open day exhibition took place at AIMS, it started at around 3:30 pm and ended at around 6:00 pm. In addition to the previous day’s guests, a good number of high school students from FAWE and King David Academy were invited. Some activities were performed such as poster presentations, speeches, competitions between students, rewarding the winners, etc.

II. Day 1: Conference “AIMS Impact on the development of scientific culture in Rwanda”

On the first day, almost all speakers explained AIMS’ values, vision, mission, activities, etc. They defined AIMS as a pan-African network of Centers of Excellence for postgraduate training in mathematical sciences, research, and public engagement in Science, Technology, Engineering, and Mathematics. They said that AIMS was founded in 2003 in South Africa by a physicist Professor Neil Turok and later replicated in Ghana, Cameroon, Senegal and Rwanda.



II. 1. Values of AIMS

Speakers revealed that AIMS has the following values: Excellence, respect, pan - Africanism and integrity.

II. 2. Vision of AIMS

Presenters displayed that the vision of AIMS is to lead the transformation of Africa through innovative scientific training, technical advances and breakthrough discoveries.

II. 3. Mission of AIMS

The presenters continued by clarifying the mission of AIMS. They said that the mission of AIMS is to enable Africa's brightest students to flourish as independent thinkers, problem solvers and innovators capable of propelling Africa's future scientific, educational and economic self-sufficiency.

II. 4. Activities of AIMS

Presenters displayed AIMS' activities such as enabling Africa's youth to shape the continent's future through innovative scientific training, breakthrough research and public engagement. They also showed to guests how AIMS is developing a Pan-African ecosystem of transformation through: Innovative Scientific Training; Research & Breakthrough Discoveries as well as Teacher Training & Public Engagement.

II. 4. 1. Innovative Scientific Training

AIMS is building the University of the 21st century, equipping Africa's brightest students with critical, independent thinking and problem-solving skills to tackle global challenges. AIMS offers a world-class Master's in Mathematical Sciences, with specializations in climate science and machine intelligence, as well a co-operative (co-op) education option that equips AIMS students with technical skills to offer solutions to the public and private sectors.



II. 4. 2. Research & Breakthrough Discoveries

AIMS brings together some of the continent's most stalwart researchers to conduct world-class research that advances the understanding of nature using mathematics and its applications.

II. 4. 3. Teacher Training & Public Engagement

To increase the pipeline of STEM students, AIMS runs an innovative teacher training program that empowers educators to improve learning outcomes for students in math and science.

Through public engagement programs such as Africa Science Week, Science and Cocktails, Pi Day, Math Clinic, etc., AIMS is demystifying science for students and the community.

II. 5. AIMS Rwanda

The speaker said that AIMS Rwanda was established in 2016 with the support of the government of Rwanda; AIMS Rwanda is the fifth Centre of Excellence to be created under the AIMS Global Network (AIMS Next Einstein Initiative) after Senegal (2011), Ghana (2012), Cameroon (2013) and Tanzania (2014). He continued by revealing that AIMS Rwanda offers Master's in mathematical sciences through: A Structured 10-month research-oriented program; an 18-month Co-operative (Co-op) Education program with a direct link to industry through work placements and the Master's in mathematical sciences – Climate Science Stream. He also said that AIMS Rwanda since its inception, has graduated over 200 students, 37% of whom are women.

III. Day 2: Open Day exhibition

On the second day, the event started at around 3:00 pm. After welcome remarks, an exhibition tour and refreshment took place.

During Exhibition tour, a number of poster presentations were displayed where most of the presenters revealed the activities of AIMS Rwanda in high school's students and teachers. They were four main pillars:

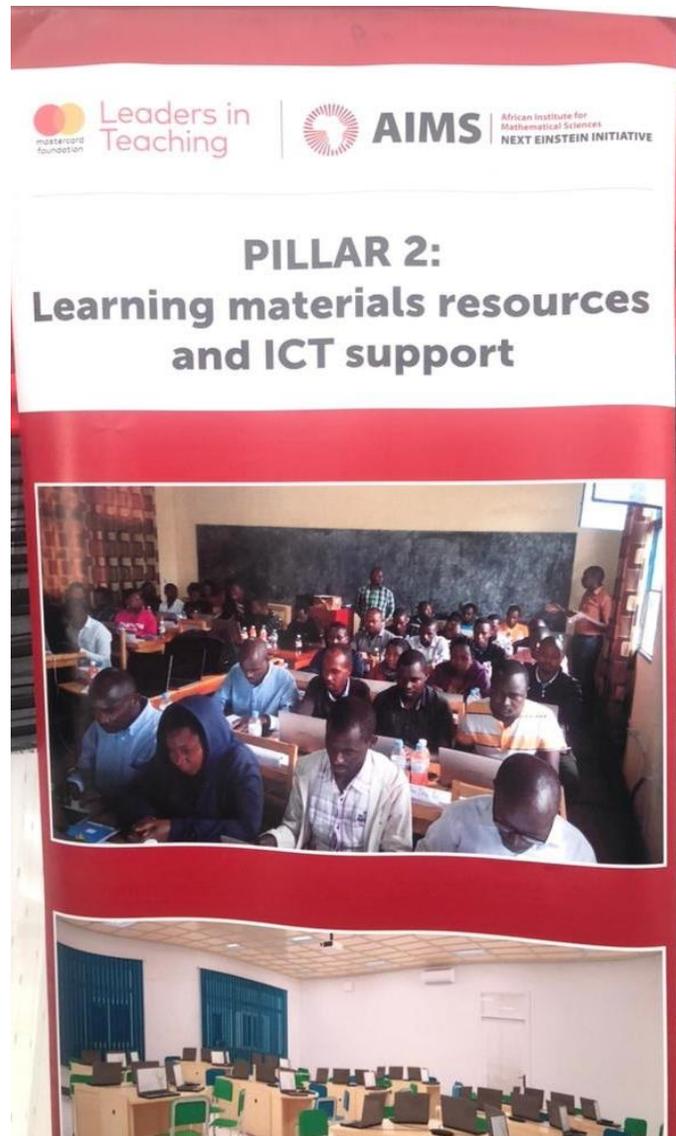
III. 1. Pillar 1.

They said that AIMS Rwanda organizes training of teachers and master trainers (30% pre-service and 70% in-service training). Science teachers' said that those trainings have a good impact on the quality of teaching and learning since after training, teachers become more encouraged to prepare lesson plans and motivate students to like the course.



III. 2. Pillar 2.

They also said that they train teachers on the use of ICT materials as learning-teaching resources. They revealed the plan of AIMS Rwanda: to distribute science kits in 3 schools and provide smart classrooms across 14 districts of Rwanda.



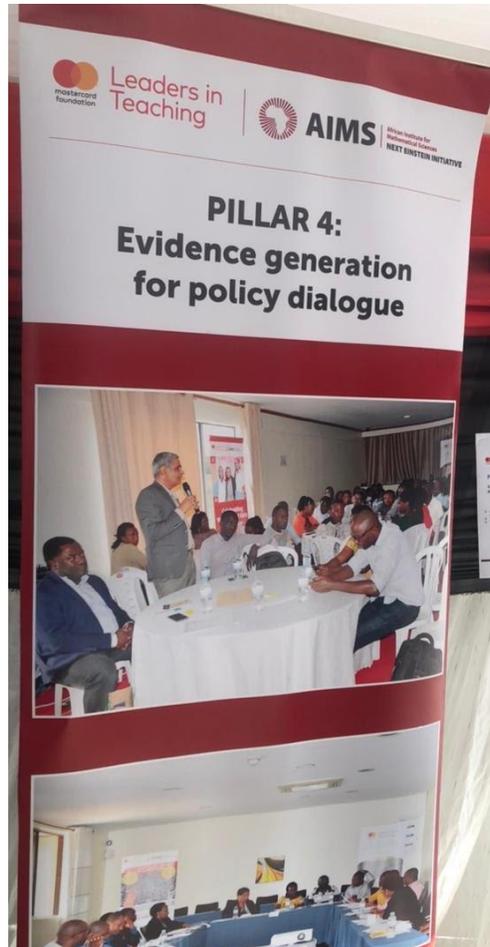
III. 3. Pillar 3.

The presenter exhibited that AIMS' communicators and scientists work together in order to take AIMS' educational and informative activities to the public (teachers, high school students, etc.). They reach people through face to face interaction, online and / or through media.



III. 4. Pillar 4.

Policy dialogue usually takes place among AIMS' stakeholders, students and staff in order to find common ground, share perspectives, identify problems and reach consensus or agreement on policy solutions.



After the exhibition tour, we started a refreshment time where high school students from FAWE and King David had competitions and awards were given to winners.



Some other activities were performed by high school students. Among them are ppt presentations, speeches, poems, etc.



The second day ended with taking event photos.

