Driving Progress in Science Education, Research, Policy, and Diplomacy: Exploring the Impact of the Sri Lankan Academy of Young Scientists

Thilini A Perera[a], Jivendra Wickramasinghe[b], Chulantha Jayawardena[c], Nimshi Fernando[d]

[a]Department of Plant Sciences, Faculty of Science, University of Colombo
[b]Department of Nuclear Science, Faculty of Science, University of Colombo
[c]Department of Earth Resources Engineering, Faculty of Engineering, University of Moratuwa
[d]Department of Chemistry, Faculty of Science, CINCEC Campus, Malabe

E-mail: slays.office@gmail.com

SLAYS – A Common Platform for Young Scientists in Sri Lanka

The Sri Lankan Academy of Young Scientists (SLAYS) was established in 2012 under the guidance of the National Academy of Sciences Sri Lanka (NASSL). Its primary objective is to provide a platform for young scientists in Sri Lanka to connect, exchange ideas and collaborate for scientific advancements. SLAYS membership comprises professionals engaged in advanced research across diverse disciplines, and the council members serve voluntarily.

SLAYS is dedicated to fostering impactful research among young scientists in Sri Lanka. It prioritises safeguarding the quality and ethical standards for scientific advancements contributing to the country's development. Its mission revolves around promoting collaborative and impactful research activities that benefit the community, achieved through a cultural and attitudinal transformation facilitated by resource and information sharing. Over the past decade, SLAYS has undertaken several initiatives to systematically foster research and science education in Sri Lanka, offering attractive opportunities to young scientists with the guidance of experienced professionals. Its annual calendar includes events and activities that facilitate its mission and vision.

Advancing Scientific Research and Collaborations

Leveraging on the strength of its members, comprising professionals from diverse scientific disciplines, SLAYS takes on a leading role as a national organisation for promoting scientific research. They utilise their expertise, knowledge, and skills to advance scientific endeavours. It includes conducting awareness programs for school children and society to inculcate a scientific temper and rational approaches to problem-solving. Consequently, SLAYS is invited to collaborate with national and international scientific organisations, further strengthening science education, science diplomacy and research within the country. In addition, SLAYS has created numerous opportunities for young scientists to enhance their science education and engage in research activities.

SLAYS has established strong collaborations with several South and Southeast Asian young academies, including Bangladesh (NYAB), India (INYAS), Thailand (TYSA), and Nepal (NaYAN). They frequently organise events such as workshops, competitions, and more, often in partnership or participation from these academies. Some notable milestones in their collaborative efforts include the International Poster Presentation Competition (2020), the E-Capture Photography Competition (2021), the Workshop on Predatory Academic Practices in South Asia (2022), and the Sci-Capture Photography Competition (2022).

SLAYS also acknowledges the significance of local collaborations, particularly with the National Science Foundation (NSF), the Sri Lanka Association for the Advancement of Science (SLASS), and the Sri Lanka Medical Association (SLMA). Over the years, these collaborations have enabled SLAYS to work closely with the SLMA, advising Sri Lankan inventors on improving, approving and evaluating inventions to combat the Covid-19 pandemic. Furthermore, during the post-pandemic economic crisis that led to fuel shortages in the country, SLAYS initiated a national campaign called "Cycle to Work." The campaign provided comprehensive guidance to voluntary participants on the essentials and best practices of commuting by bicycle, approaching it from a scientific perspective.

SLAYS was the first in introducing the Three Minute Thesis (3MT) competitions in Sri Lanka with the permission of the University of Queensland. The academy is not reluctant to explore novel concepts and has consistently succeeded, leading by example. One of the focal points of SLAYS activities is its annual international conference, which includes community outreach activities, workshops, and competitions. The conference features expert speeches addressing contemporary global issues encompassing science, science education and publications. It also provides a platform for showcasing the research findings of the SLAYS members and opportunities for interdisciplinary research collaborations.

In 2023, SLAYS introduced the "Science Industry Conclave" concept to enhance interactions among young scientists and industries. Another significant achievement was the launch of the SLAYS Cooperate Arm, which facilitated collaboration between industries and researchers. This initiative enabled industries to express their interest in partnering with researchers to address their challenges through scientific and innovative solutions, embracing mutual benefits. "Help a Young Scientist" was another initiative undertaken by SLAYS to support and facilitate research activities by local scientists amidst the ongoing economic crisis in Sri Lanka.

SLAYS maintains its online presence through its website (slays.lk), YouTube channel and Facebook page. SLAYS utilises these digital platforms to effectively disseminate scientific initiatives and events. The recent creation of a Twitter account has immensely facilitated swift communication and sharing of important information among the entire SLAYS membership. However, SLAYS acknowledges the need to improve the visibility of its activities through digital media and reach a wider audience, considering it a responsibility to promote scientific education and research and to motivate young scientists in the country.

Enhancing International Exposure and Engagements

SLAYS consistently emphasises fostering international exposure and collaborations for young scientists in Sri Lanka. To achieve this, SLAYS has proactively implemented various measures to expand its engagement and representation at the international level. Participation of SLAYS office bearers at international forums and conferences, such as delivering a speech on "Science Diplomacy in the Asian Region" at the Triennial Conference of the Inter Academy Partnership (IAP) and the Worldwide Meeting of the Young Academies held in Arizona, USA in 2022. Through such participation, SLAYS has secured representation on the steering committee for Asian Young Academies. SLAYS members have also actively engaged in online meetings since 2020, including the Global Online Young Academies meetings, which are crucial for young scientists.

Additionally, SLAYS achieved another significant milestone in its overseas outreach by launching the SLAYS Global Arm in collaboration with the Sri Lankan Association of Oregon in the USA in November 2022. This initiative has provided a platform for collaborations between science enthusiasts worldwide and Sri Lankan scientists, effectively enhancing SLAYS' global perspective. The key objectives of SLAYS Global Arm include providing expertise to young Sri Lankan scientists, establishing connections with the scientific

community in the USA, facilitating research collaborations when needed, and supporting Sri Lankan young scientists by offering necessary equipment and assistance, including high-quality used equipment.

Empowering Sri Lankan Young Scientists for a Brighter Future

Previously, SLAYS had limited direct involvement in policymaking activities, as priorities were focused on other areas. However, recognising the importance of conveying its voice and safeguarding young scientists in the country, SLAYS has taken measures to enhance its understanding of science diplomacy and policymaking. It has organised a series of discussions on science diplomacy with experts engaged in science policymaking aimed at educating SLAYS members on the subject.

At the SLAYS conference 2023, two keynote speeches were dedicated to science diplomacy, with a distinguished policymaker from Sri Lanka and an international diplomat sharing their insights on the intricacies of policymaking. Consequently, SLAYS received an invitation from the NASSL to participate in an international collaborative program to deepen its knowledge of science diplomacy and science policy. Through these efforts, SLAYS has effectively conveyed the importance of involving Sri Lankan youth in policymaking, and it eagerly looks forward to future opportunities to contribute to policy discussions and decisions that impact young scientists in the country.