

Making science
work for you

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Find better ways to address climate change, rainforest problems, students urged in ASEAN science tilt

High school students competing in the 5th ASEAN Plus Three Junior Science Odyssey (APTJSO) in UP Los Baños took on the challenge from leaders of the local science community to study how scientists can better assess the effects of climate change on the world's rainforests.

The APTJSO, now on its 5th year, is an annual science competition among gifted students in the ASEAN region plus those in Sweden, Korea, and China. The Philippines is hosting the science tilt for the first time this year with the theme "Climate Change and the Rainforest."

It is organized by the Department of Science and Technology-Science Education Institute (DOST-SEI) in cooperation with UP Los Baños.

"Our rainforests in the country are among the richest in biodiversity in the whole world. Explore the scientific arena in search for better ways to mitigate and adapt to the impacts of climate change," said DOST Sec. Mario G. Montejo in his keynote message. "We look forward to paving the way for the gifted youth in the ASEAN Plus Three region." His message was delivered by DOST Undersecretary for

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Young participants of the 5th APTJSO in Los Baños, Laguna. (Photo courtesy of 5th APTJSO Facebook page.)

Rizal State U beefs up its library thru STARBOOKS

By Joy M. Lazcano
S&T Media Service, DOST-STII



University of Rizal System head librarian Dr. Elvira C. Prieto recognizes STARBOOKS' support to state-run universities as the latter maximize their meager allotment for new books. (Photo by Joy M. Lazcano, S&T Media Service, DOST-STII)

Tanay, Rizal - The Rizal State University in this municipality beefed up its library which helped earn the approval of independent accrediting institution for State Universities and Colleges. The improvement in the state university's library holdings was because of STARBOOKS or the Science and Technology Academic Research Based Openly Operated Kiosks.

The University of Rizal System (URS) main campus was accredited for its several undergraduate and graduate programs by the Accrediting Agency of Chartered Colleges and Universities in the Philippines (AACUP) in part for its partnership with the Department of Science and Technology through the Science and Technology Information Institute's (DOST-STII) STARBOOKS.

The accreditation was granted to URS for passing the AACUP evaluation based on the parameters such as administration, personnel, book collections, library services, physical set-up and facilities, financial support, and linkages to other institutions. The accreditation serves as recognition for attaining a high level of excellence for an academic institution.

STARBOOKS, according to university personnel, was responsible in increasing the number of URS library collections especially those that are related to agriculture, science, and engineering.

The number of books in the library is among the parameters in which an academic institution is measured.

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The STARBOOKS team (from right) Lloyd Frederrick Mandapat, Vincent Tuyor, and Nelly Agpawa conduct seminar to library personnel of the University of Rizal System. (Photo by Joy M. Lazcano, S&T Media Service, DOST-STII)

According to URS head librarian Dr. Elvira C. Prieto, the university budget for new book title acquisition was a measly P350,000 per semester. The main campus has more than 2,000 students enrolled in its campus, which means that URS allocates less than P500 per student in a semester for book acquisition.

But due to its linkage with DOST-STII, URS was able to raise the number of book collections and secure accreditation.

"Agriculture is our flagship program here in the main campus," says Dr. Fe D. Batoon, director of RSU-Tanay Campus. "And because of STARBOOKS and our accreditation, our enrollees have increased significantly compared with previous years."

STARBOOKS was able to add 30,000 more library contents on science and technology in various formats without connecting to the Internet. According to Lloyd Frederrick Mandapat, science research specialist at DOST-STII, "STARBOOKS is a stand-alone digital library. You can access all its data by going on-site, search the topics you want, and print it."

The country's first ever offline digital library also houses K-12 interactive courseware on math and science developed by the Science Education Institute of DOST.

It also contains video collections and livelihood videos dubbed as "TamangDOSTkarte", which provides parents and some entrepreneurial students a thing or two on various livelihood opportunities within their sphere of interest.

Aside from these, the STARBOOKS team informed Prieto that STARBOOKS can now be accessed through smart phones via network access from the library computer server.

Users no longer have to queue in searching for topics; they can do that in the comfort of their smart phones within the premises of the library.

"Users do not need to wait for their turn to access STARBOOKS content," explains Mandapat. "They just need to connect with the network and login."

Benefits to students

With the sporadic slow phased Internet connection in Tanay, many students at URS prefer using STARBOOKS for their research.

According to them, researching for data and information for their theses were made easier with STARBOOKS. Dhen Frances Zorilla, a third year Human Resource Development student says that she often uses STARBOOKS for her thesis. "Kadalasan ko pong sinasaliksik ang mga impormasyon tungkol sa siyensya at teknolohiya para sa aming thesis," said Zorilla.

On the other hand, Inah Jenine P. Alcance, a BS Financial Management student said that using STARBOOKS is easier compared with physical books. "Mas madaling gamitin ito kaysa sa libro dahil hindi mo na kailangang magbuklat ng maraming libro upang makuha mo ang impormasyon at datos na kailangan mo. Isearch mo lang at makikita mo na ang hinahanap mo."

Furthermore, what differs STARBOOKS from an Internet search is that users are assured that sources of its content are credible.

"Most of our contents came from DOST's library collections," explains DOST-STII's Nelly B. Agpawa. "That is why users are assured that they are getting the right information and data."

Currently, the URS main campus has 10,890 book collections and with a total of 69,362 titles for all its 10 campuses in the province of Rizal.

And since STARBOOKS gave very good results in this state university, URS acquired additional three units of STARBOOKS and upgraded its previous seven units that are distributed to the 10 URS campuses.

Apart from this, URS is also active in its extension services bringing some Dumagat communities in Tanay to try STARBOOKS in their main campus and learn from its free livelihood videos.

As of April 2016, the science department has distributed 877 units of STARBOOKS since July 2011. DOST-STII aims to install STARBOOKS to every barangay in the country.

Find better ways...

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Science and Technology Services Dr. Rowena Cristina Guevara.

The Philippines is among the nations most at risk of climate change hazards. However, rainforests play a key role in curbing the negative effects of climate change by producing oxygen, helping recycle and clean the water, removing carbon dioxide from the atmosphere, and absorbing rainwater to prevent floods and landslides, among others.

Guevara earlier urged the participants to know the issues in the science community and start studying them as early as now.

"Our future will be determined by the efforts you are making right now," she said in her opening remarks. "Since you are the ones who will, in the future, address the environmental issues challenging our world today, you might as well start taking interest in such issues and studying them earnestly now. I hope your endeavor today will result in original, innovative ideas that no one else has come up with so far."

Meanwhile, World Agroforestry Center Country Coordinator Dr. Rodel D. Lasco said that there is a lot of uncertainty on how climate change affects the forests. "We do not know how our ecosystems can change. And that is the challenge for you – the next generation scientists," he told the APTJSO competitors.

Lasco made these statements after showing computer simulations of the world's forest cover or vegetative cover in the year 2100 given the present effects of climate change. The simulations painted differing scenarios, indicating the uncertainty of what the future may hold as far as the globe's vegetative cover is concerned. Some forest types will increase and some may decline in number, he added.

Global warming should not reach more than two degrees in the next 100 years, he said. However, it has been projected that within that time frame, the planet will be 5-6°C warmer than it is now.

PH fired up for competition

Meanwhile, the Philippine delegation, composed of four teams from two Philippine Science High School (PSHS) campuses, have prepared hard for the competition. The Philippines grabbed the overall championship in the first four years of the APTJSO.

Held from June 13-18, the APTJSO features a variety of activities such as poster presentation, laboratory skills assessment, project pitching, field work, and tree planting. There will be parallel activities for coaches as well.

DOST-SEI Director Dr. Josette Biyo is confident with the Philippine teams' chances, seeing how they prepared hard for the competition. Biyo also expressed her belief that the changes instituted in the PSHS curriculum have helped in the students' training and preparation.

Quezon Province schools get DOST's STARBOOKS

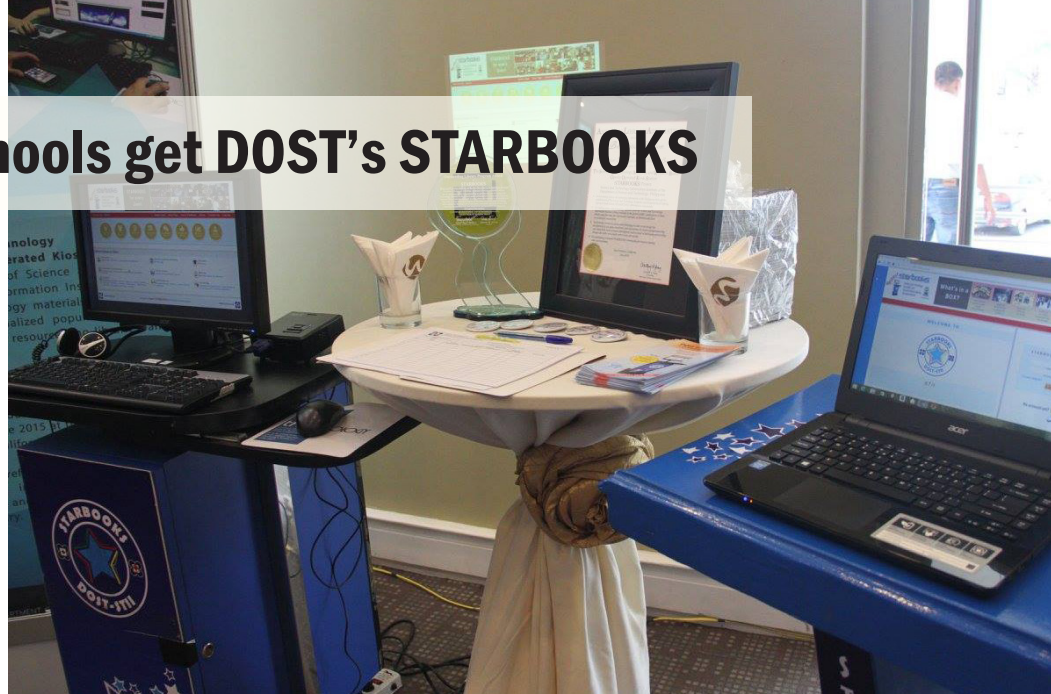
By **Rodolfo P. De Guzman**
S&T Media Service, *DOST-STII*

LUCENA CITY, Quezon, Philippines-- The locally-developed educational tool called STARBOOKS has gained much interest in the province of Quezon after it was first installed in the province in 2014. After its installation, various private and public schools in Quezon requested this knowledge product from the Department of Science and Technology's Science and Technology Information Institute (DOST-STII), the developer of STARBOOKS.

STARBOOKS or the Science and Technology Academic Research-Based Openly Operated Kiosk Station is a library-in-a-box for students in the elementary, high school and college students, as well as researchers, all over the country. It is a unique educational software containing science and technology information installed in ordinary desktop computers with monitor and housed in an attractive pod or kiosk.

To cement the partnership of requesting schools and the DOST, a memorandum of understanding between DOST-STII, through the DOST Provincial S&T Center-Quezon headed by Director Maria Esperanza E. Jawili, and the different educational institutions in the province of Quezon was signed on April 13, 2016 at the Main Library Seminar Hall of the Manuel S. Enverga University Foundation (MSEUF) in Lucena City.

This initiative is also in partnership with the Librarians Association of Quezon Province and Lucena Inc. (LA-QueP-LInc) that signals the start of a continuous search for more



STARBOOKS continues to gain much interests as it provides an accessible platform for S&T information sans the Internet connection.

innovative learning systems that would allow easy access to S&T information for the benefit of students particularly in the provinces where internet connectivity is low or non-existent. The STARBOOKS is operated offline, thus enabling students and researchers to do their assignments and reports even without internet facility.

"The creation of the STARBOOKS aims to create interest in the field of science and technology which may increase the number of Filipinos enrolling in S&T courses, encourage great and curious minds to develop new ideas through inventions and innovations; and inspire one's capacity for entrepreneurship and research. It is an innovative approach to level up learning experience and to promote science to value knowledge and education," said Director Jamili.

STARBOOKS contains thousands of digitized materials covering topics such as agriculture, ICT, food and nutrition, engineering, basic science, geography, education, medicine, ICT and many others. It boasts of quality information on disaster preparedness, interactive courseware and videos for K to 12, news and publications, encyclopedia, library collections and livelihood videos.

"The municipal and school libraries of Quezon specifically in Mulanay, San Andres and Atimonan now have STARBOOKS through the initiative of DOST Region IV-A under the Community Empowerment through Science and Technology (CEST) Program," added Director Jawili.

Jawili said that last April 29, 2015, eight schools, private and public, have been installed STARBOOKS that included among others the Quezon Provincial Library and Lucena City Library. This was made possible through the efforts of the LA-QueP-LInc.

The schools present during the MOU signing, installation and training of librarians were as follows: Sacred Heart College, Holy Rosary Catholic School, Maryhill College, MSEUF-Catanauan Campus, MSEUF-Candelaria Campus, MSEUF-Main Library in Lucena City, the Philippine Polytechnic University (PUP) in Lopez, Quezon, MSEUF-Basic Education Department Library, Calayan Educational Foundation Inc. (CEFI), Atimonan Municipal Library, Luis Palad National High School, Quezon Provincial Library, Lucena City Library, St. Joseph Academy, Camflora NHS, and the PUP-Mulanay.

"We at LA-QueP-LInc are very pleased to be part of this STARBOOKS program of the DOST because this will definitely help our students in their researches and we look forward to having more of this kind of educational materials so that we will further improve the quality of our education here in the province of Quezon," said LA-QueP-LInc president Eulalia G. Zapata, R.L. MAEd.

To date, the number of STARBOOKS installed in almost all regions in the country stands at 853. Some of these kiosks are now installed with the latest version with more livelihood videos from the former Technology Resource Center, thus providing more information on possible business enterprises that viewers can use to start earning.

STARBOOKS program aims to be all over the country and make it available to students and the general public in more cities and barrios. Soon to be launched is the Super STARBOOKS, a revitalized, more enhanced version with more content and videos. For those interested in STARBOOKS, they may contact the Science and Technology Information Institute at telephone numbers (02) 837-2191 to 95 or log on to www.science.ph for more details.

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Help the poor through innovative research, DOST VII head urges scientist in the Visayas

The Department of Science and Technology Region VII Director Edilberto Paradela urged scientists in the Visayas to do researches that promote “inclusive development.” Speaking before the participants in the scientist conference at the University of San Jose Recoletos (USJR) Auditorium, Paradela stressed doing such fulfills the scientists’ moral and social duties to help alleviate the living condition of grass root communities.

The regional director said that while the country’s economy has improved tremendously, the grassroots have not enjoyed the benefits of economic growth. Thus he made the appeal to Visayan scientist-participants to the Annual Scientific Conference held recently by the DOST-National Research Council of the Philippines Visayas regional cluster. The NCRP has about 4,000 members all over the country.

Paradela noted that while the Philippines has posted an unprecedented average economic growth rate making it one of the best performing economies, many have remained poor.



DOST Region VII Director Director Edilberto Paradela.

“In spite of the country’s economic feat, a considerable segment of the population is unable to enjoy the fruits of economic gains,” Paradela said. “Apparently, the bulk of the country’s new wealth created by

economic boom has failed to trickle down to the grassroots level of society, thereby creating a much wider divide between the rich and the poor.”

“The disparity in the distribution of the nation’s wealth necessitates urgent appropriate action on those who have the abilities to bring social justice to the impoverished sectors of our society,” he added.

Challenging the conference participants, Paradela underscored the need for the members of the scientific community to support the government by “doing their parts in addressing this pressing need for inclusive growth and development in the country through innovative research.”

He further said that “it is the social and moral duty of those who have the gift of science to commit their intellectual gifts to the betterment of the world, and most especially of those who have less in life.”

“With your crucial participation, we in the government would be able to work more effectively in achieving our common goals of uplifting the lives of the grass root communities,” he pointed out.



Dr. Maria Inez Angela Z. Ponce de Leon (right) receives her certificate of appreciation from National Scientist Angel C. Alcala (left) as speaker on science communication during the Policy Forum on Multidisciplinary Approach to Community-Based Conservation and Management Programs held at Hotel Jen on June 14, 2016. Looking on was Academician Rhodora V. Azanza, Chair of the Biological Sciences Division of NAST Philippines and moderator during the event. (Photo courtesy of NAST Philippines/ Text by Rodolfo P. de Guzman/S&T Media Service)