

Making science
work for you

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DOST introduces STARBOOKS to US Peace Corps volunteers

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

US Peace Corps Volunteers took time off from their duties to know about STARBOOKS, a digital science library developed by the Department of Science and Technology-Science and Technology Information Institute (DOST-STII) during a presentation held at the International Institute of Rural Reconstruction in Silang, Cavite.

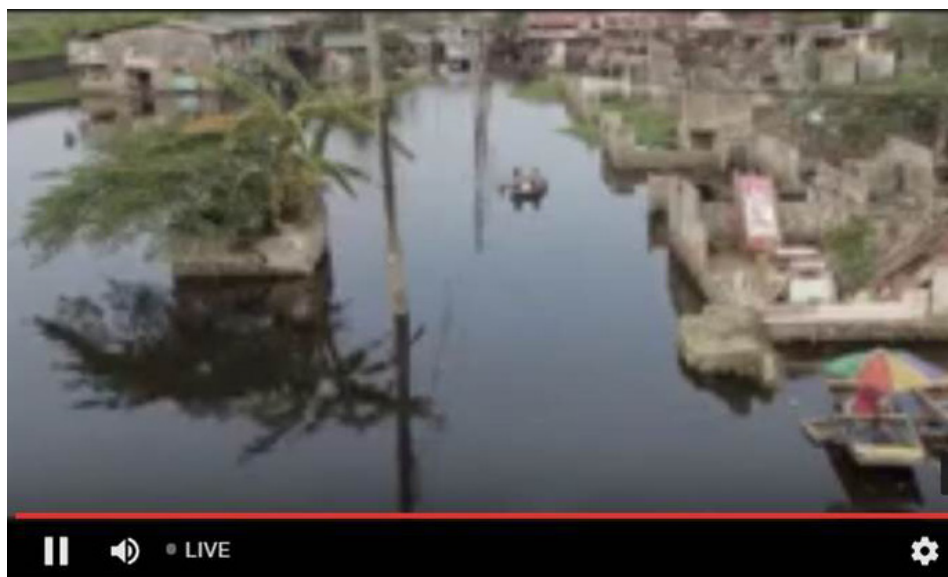
STARBOOKS, or Science and Technology Academic Research-Based Openly Operated Kiosks, contains tons of science and technology (S&T)-related materials in text, audio, and video formats from local and international sources. The first digital science library in the Philippines, it has a user-friendly interface and requires no Internet connection, making it ideal for areas with little or no Internet connectivity. The STARBOOKS presentation was part of the Peace Corps In-Service Training which aimed to help equip participants with awareness and knowledge of various e-learning tools and programs in the Philippines which they may adopt in their respective schools in the country. Peace Corps Volunteers are assigned to teach in various schools across the archipelago.

In his presentation, DOST-STII Information Resources and Analysis Division Chief Alan Taule said that STARBOOKS was developed to generate greater interest among the country's youth on science and technology (S&T), deemed as a leading driver of economic growth.

Taule added that DOST-STII continuously updates the content of STARBOOKS. Its latest features include an interactive video courseware and K-12 materials, videos on livelihood opportunities, and materials on disaster risk management. These include the RED Book by DOST's Project NOAH, a reference guide for emergency and disaster. Among others, the RED Book features DOST-PHIVOLCS' "How Safe Is My House" checklist for earthquake safety

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DOSTv airs live



A screenshot of DOSTv's initial feature presentation titled "Unos" which airs May 30 at [hht://www.dostv.ph](http://www.dostv.ph), www.science.ph, and www.dostv.ph/youtube.

DOSTv, the Filipino Weather Channel, goes live, broadcasting weather and science-based news online at [hht://www.dostv.ph](http://www.dostv.ph).

The site is also mirrored at www.science.ph and www.dostv.ph/youtube.

DOSTv features the latest weather updates and forecast, as well as science and technology stories in the country.

For its initial feature documentary, DOSTv showed Unos (storm), which follows the lives of people living in a permanently flooded area in Malabon.

Produced by the Department of Science and Technology through Science and Technology Information Institute and Philippine Atmospheric Geophysical and Astronomical Services Administration, DOSTv aims to enrich DOST's weather information and broaden its range. DOSTv is likewise supported by DOST offices and agencies, including the Philippine Council for Industry, Energy and Emerging Technology

Research and Development, Philippine Council for Agriculture and Natural Resources Research and Development, Advanced Science and Technology Institute, and the Information and Communication Technology Office.

Through DOSTv's online presence, the public is assured of a reliable and accurate source of real-time weather information. Such information is highly important in daily activities of households, schools, communities, and big industries such as tourism, aviation, and shipping, among others.

DOSTv will also feature news, stories, and live interviews on interesting programs, projects, innovations, personalities, and advances in the local science and technology community.

For more updates on DOSTv, please visit and like <https://www.facebook.com/DOSTvPHor> follow instagram.com/dostvph and www.twitter.com/DOSTvPH. #DOSTv #DOSTvPH #dostPH #TheFilipinoWeatherChannel.



DOST-STII Information Resources and Analysis Division Chief Alan Taule explains the concept behind STARBOOKS and the benefits it offers during the Peace Corps In-service. (Photos by Gerardo Palad, S&T Media Service, DOST-STII)



US Peace Corps Volunteers inquire about the DOST-developed research tool from STII staff Robelyn Cruz. (Photos by Gerardo Palad, S&T Media Service, DOST-STII)

on concrete hollow block houses in the country and emergency hotline numbers, among others. Also included is DOST-PAGASA's series of videos for disaster readiness dubbed BLTB, or bagyo, tsunami, lindol, at baha (typhoon, tsunami, earthquake, and flood). BLTB serves as an easy instruction guide for the public to prepare themselves for typhoons, earthquakes, tidal waves or tsunamis and floods.

STARBOOKS also contains books, magazines, journals, scientific and research papers on various S&T subjects and fields of specialization, and Britannica Ultimate Encyclopedia.

It is a recipient of the 2015 Outstanding Library Program of the Year Award by the Philippine Association of Academic and Research

Librarians and the prestigious American Library Association Presidential Citation for Innovative International Library Projects in June 2015.

Taule's presentation was followed by a demonstration of STARBOOKS by DOST-STII Science Research Specialist II Robelyn Cruz to familiarize Peace Corps Volunteers on how to access and use STARBOOKS.

Since its launching in June 2012, STARBOOKS has had a total of 853 installations in schools, public libraries, and other government agencies in every region of the Philippines.

For inquiries on STARBOOKS, send an email via dost.starbooks@gmail.com or stiiibrary@gmail.com and log on tostarbooks@stii.dost.gov.ph and www.starbooks.ph.

ABOUT US

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Innovative food products up for the taking

By **Framelia V. Anonas**
S&T Media Service, *DOST-STII*



Food product samplers are on display during the DOST Technology Transfer Day, which showcases technologies that are ready for adoption.

Various kinds of foods and flavors developed through science and technology intervention give food lovers and developers wide prospects for innovation in food products, and provide entrepreneurs huge opportunities for business.

Filipinos, being citizens of the world, have acquired various tastes for various local and international food and have undoubtedly become more adventurous gastronomically. This gives food experts much opportunities to come up with enhanced food products with very good quality and broad use, such as complementary and emergency food.

Moreover, various disasters have also sent food experts thinking of ways to develop food items that can supply the nutritional needs of victims and can be stored and distributed without much issues.

A wide variety of such innovative food products were showcased recently during the Technology Transfer Day held recently in Hotel Sofitel, Pasay City. Organized by the Department of Science and Technology (DOST), the Technology Transfer Day provided opportunities for technology developers and adoptors, including those in the food industry, to find technologies that are ready for takers.

The exhibit section aptly called "Future Flavors" paraded most DOST-developed or funded food products, providing instant taste tests and treats to willing participants.

Among the foods on display and were up for taste and adoption were:

Ready-to-Eat arrozcaldo: Categorized as disaster food ready to eat without drinkables. This arrozcaldo (porridge) was developed as a disaster mitigation/relief food to address immediate hunger of disaster victims. It has a shelf life of at least one year. The packaging structure is lightweight and very handy. It was designed to withstand aerial distribution of about 800-1000ft for the distribution in flooded areas or in disaster zone that cannot be reached by land because of damages.

Complementary foods: These are protein and energy food products made of rice-and-mongo combination, in instant, ready-to-cook, and crunchies versions.

Cassava cookies and cassava chips: Made of 100 percent cassava grates, these gluten-free goodies provide a healthy fix for people with sweet tooth. The cassava chips are ready to fry, perfect for movie or tele marathon snacks.

Thermally processed instant laing: This canned laing comes as a complete dish made

of gabi (taro) leaves cooked very slowly in coconut milk and seasoned with ginger and chili for zing, and shrimp paste for unique salty flavour.

Iron fortified rice: This is an enriched kind of rice made from a blend of iron rice premix or ordinary rice grains coated with iron using suitable solvent and binder.

Stabilized brown rice: This brown rice has a lengthened shelf life of up to nine months with its original taste intact. This stability was developed through a combination of heat treatments.

Food Innovation Center products: These food products include vacuum-fried tahong (mussels), okra, squash, jackfruit, durian, pineapple, calamansi, tomato, bagoong and sea grapes, and freeze-dried pineapple.

Said showcase of innovative food products and other technologies was one of the highlights of the celebration of the Technology Transfer Day to commemorate RA No. 10055 or the "Philippine Technology Transfer Act of 2009" which provides the framework and support system for the ownership, management, use, and commercialization of intellectual property generated from research and development funded by the government.

Coop fattens up meat production through S&T

By **Geraldine B. Ducusin**
S&T Media Service, *DOST-STII*

Faced with the problem of hog oversupply, the farmers of Buklod-Unlad Multi-Purpose Cooperative (BUMC) of Taysan, Batangas ventured into meat processing. But early in its manufacture of processed meat called Cerdo Real, the coop was confronted with yet another oversupply problem, and that is of processed meat products.

But that problem was poised to be solved. BUMC was created in June 1991, initially having 44 members from the Malaluan clan as the coop was primarily established for their family. However, the Cooperative Development Authority (CDA) requires that an organization should be open to non-family members or the public for it to be accredited. This is the reason why BUMC opened the membership to the public in 1993.

BUMC's membership is comprised of overseas Filipino workers, farmers, and businessmen, among others. The coop obtained its CDA accreditation in 1997. Mr. Angel Garcia, Chairman of BUMC said that businessmen are crucial in their membership because they help in the capitalization of the cooperative.

The goal of BUMC is to strengthen agriculture and trading by farmers through financing and new farming techniques. In 2008, the cooperative launched its Alagaan Pangkabuhayan, an integrated pig production program which espouses the "from conception to consumption" system of pig production. Some farmer-members are into planting of cassava and corn which the cooperative uses for feed mill. Some of the members too are into hog-raising.

And to help its members earn even when the price of hogs is low, BUMC ventured into meat processing.

Aware of the already established names in the processed meat industry, BUMC's own brand Cerdo Real boasts its quality meat used in all its products. As a matter of fact, farmers cultivated cassava as animal feed and raise the hogs themselves.

At present, Cerdo Real has marked its name in the processed meat sector and is now planning on moving beyond the CALABARZON region.

But a few years back, BUMC, like some of those start-ups, could hardly turn up a profit.

In 2009, BUMC sought the help of a consultant, a nutritionist who helped achieve consistency in Cerdo Real product's taste. During this time, their best seller was siomai, which is a must-try as it hardly contains extenders compared with some brands in the market. Also, their hotdogs are comparable among the leading brands while their price is competitive.

Moreover, they wanted more improvements on their products including its packaging. And upon learning of the Department of Science and Technology-Industrial Technology Development Institute (DOST-ITDI) packaging services, BUMC quickly availed of its assistance.

And when it also learned of DOST's Small Enterprise Technology Upgrading Program (SETUP), the coop did not wait for a second and also applied for assistance.



Through SETUP, BUMC acquired a meat grinder, mixer, cooking vat, vacuum sealer, and freezer. The program also assisted the coop on label design and execution.

The technology support gave a boost on the coop's efficiency and production. Before SETUP, BUKLOD earned about Php 150,000 from processed meat production, but after SETUP intervention, the coop earned between Php 350,000-400,000. The coop is now producing 2.5 tons of meat products per month.

Toriano said that SETUP had a great impact on their production. The blast freezer, for instance, helped in extending the product's shelf life. Mixing of meat too is no longer done by hands but by machines. Packaging is the only thing left that they do manually.

At the outset, this increase in efficiency and production may have resulted in less people working, which may seem like a bad news. But not so, said Malaluan. Since they are now producing at a faster rate, with all these equipment contributing to the overall product improvement, more farmers joined to raise more hogs.

There is now great demand for Cerdo Real products, so the coop has to raise more hogs. The farmer-members are now earning more from hog-raising and slaughter operation.

inFOCUS

Truong Quynh Lien (right), Deputy Director of the Center for Science and Technology Communication of the Ministry of Science and Technology of Vietnam, receives the Broadcaster's Manual for Disaster Preparedness from Dr. Renato U. Solidum Jr. (center), director of the Philippine Institute of Volcanology and Seismology. The manual is a guide for broadcasters and media practitioners on the how to report natural hazards like typhoon, flood, earthquake, tsunami and others to the general public that would be easily understood. Ms. Truong led a group of Vietnamese journalists from different media organizations that recently visited the Department of Science and Technology in collaboration with the Science and Technology Information Institute. The Vietnamese group made an observation visit to survey DOST's S&T programs. Also in photo is Dr. Aristotle P. Carandang, Chief of the Communication Resources and Production Division of STII. **(Photo by Henry de Leon/Text by Rodolfo P. de Guzman, S&T Media Service)**

