

Key Result Area: Poverty Reduction and Empowerment of the Poor and Vulnerable

as of 2021

Programs/ Activities/ Projects	Project Title	Brief Description
Scholarship Programs	DOST-SEI S&T Undergraduate Scholarship Programs - RA 7687 (Science and Technology Scholarship Act of 1994) - RA 2067 (Merit Scholarships) - RA 10612 (Fast-Tracked S&T Scholarship Act of 2013)	<p>The scholarship is for poor, talented and deserving students desiring to pursue BS degrees in science and technology in identified priority areas.</p> <p>Merit Scholarships are for students with high aptitude in science and mathematics and willing to pursue fields in science and technology. It is the precursor of all S&T scholarships of DOST where about 300 scholarship slots are available every school year. It originated from the "Science Talent Search" which begun in 1958 when the National Science Development Board (NSDB), the forerunner of DOST, was created. The first set of awards consisted of 10 slots, which gradually increased through the years. The program has produced leaders and decision-makers in various areas of S&T, in government, the academe, and private industries.</p> <p>The beneficiaries are incoming college students who wish to pursue careers in the DOST identified priority courses in basic, and applied sciences, engineering and science teaching. R.A. 10612 or the Fast-tracked S&T Scholarships envisions a fast tracking of more science, technology, and engineering graduates by offering scholarships to deserving students in these courses in their 3rd year undergraduate study, based on their competitiveness and merit. It also offers additional incentives to attract the graduates of this scholarship program into teaching science, mathematics and technology courses in a public or private high school.</p>
	Graduate Scholarship Programs - Capacity Building Program in Science Education	The program awards MS and PhD scholarship grants in Science Education to DOST-SEI scholar-graduates; graduate students with academic honors, qualified science and mathematics faculty of Teacher Education Institutions (TEIs) and consortium member universities with a major in any of the priority fields like Biology, Chemistry, Physics and Mathematics. The beneficiaries are DOST-SEI scholar-graduates; graduate students with academic honors, qualified science and mathematics faculty of Teacher Education Institutions (TEIs) and consortium member universities.
	- Accelerated S&T Human Resource Development (ASTHRD) Program	The Accelerated S&T Human Resource Development Program is a unified and innovative human resource program aimed at accelerating the production of high level human resources by awarding MS and PhD scholarship grants to eligible individuals who will fill in the gaps in basic and applied sciences. The beneficiaries are graduate of BS/MS degree in basic and other applied sciences and mathematics.
	- Engineering Research and Development for Technology (ERDT) Program	With the government's commitment to increase and enhance competitiveness of the country's human capital on research and development, the Engineering Research and Development for Technology Program was established with the aim of developing a critical mass of MS and PhD graduates in engineering and related courses. The beneficiaries are graduate of BS/MS degree in engineering or related field.
	DOST Human Resource Development Program (HRDP)	The implementation of the DOST Human Resource Development Program is in pursuant to DOST Administrative Order Nos. 009 s. of 2003 and 00s s. of 2005. For the young scientist to be relevant, technically qualified/competent to undertake research and keep abreast with the fast changing new and emerging technologies, the DOST needs to capacitate and develop its regular staff for a more effective and efficient delivery of the various S& T programs by giving opportunities for further higher studies and specialized trainings. The DOST Human Resource Development Program – Degree Program Component was handled by SEI from DOST effective April 2013 through DOST Administrative Order No.006 s. of 2012 as amended by DOST AO No. 001 s. of 2013.
	The Filipino Patriot Scholars' Project	The Filipino Patriot Scholars Program was conceptualized in February 2016 with the aim of fostering patriotism among DOST-SEI scholars and instilling in them the core values of professional excellence, social responsibility, and servant leadership and to harness their potentials towards inclusive national development.
	Bangon Marawi S&T Human Resource Development Program	The Bangon Marawi Program is considered an immediate response of the DOST-SEI in addressing the administration's call to help rebuild and rehabilitate Marawi's human and social infrastructures, particularly in the S&T human sector.
	Foreign Scholarship Program	The Foreign Scholarship Program aims to provide master's and doctoral degrees in specialized priority fields in science and technology to develop a pool of high quality human resources in science and engineering who will contribute to the country's global competitiveness and economic development; provide opportunities to talented and deserving students to study and obtain MS and PhD degrees in science and engineering in reputable institutions abroad; and upgrade the country's research and technological innovation capabilities in the area of advanced sciences and emerging technologies.
	DOST Scholarship Offerings for ASEAN Researchers at Cambodia, Lao PDR and Myanmar (CLM)	The Scholarship Offerings for ASEAN Researchers (Cambodia, Lao PDR and Myanmar-CLM) is exclusively offered to the citizens of the three countries. DOST-SEI led in the coordination with the embassies of CLM as well as with the delivering institutions.

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S&T Promotions and Other Youth Programs	Science Explorer	A mobile interactive learning facility that features exciting hands-on learning through fun and easy science activities. The bus contains laboratory facilities, audio-visual equipment, interactive exhibits, and various learning materials that will be helpful in facilitating learning to the students. It intends to bring to under-equipped schools a mobile interactive science laboratory that would enable students to conduct hands-on experiments and discover the wonderful world of science.
	Science Camp	Collaborative project with research and development institutes, professional organizations and other government institutions. The overall objective is to increase the pool of S&T human resources by nurturing talented and gifted students in science through mentoring and incentive programs approach.
	Expanding the Reach of the DOST Scholarship Program to Priority Municipalities	In cooperation with the Department of Education (DepEd), DOST Regional Offices, Provincial Science and Technology Centers, local government units, and partner institutions, target municipalities will be engaged in a massive communication campaign promoting the DOST-SEI Undergraduate Scholarship Program, inspiring students to take up science courses in the college level, and convince qualified students to apply for the DOST-SEI Undergraduate Scholarship Program. Such campaign shall use school-based, community-based and media-based platforms to saturate the target municipalities and eventually "push" qualified students to apply the DOST-SEI Undergraduate S&T Scholarship Program.
	Tagisang Robotics: Design, Build and Play Competition	The competition is open to high school students with the goal of enticing them to venture into robotics. In this competition, students create robots that are made to do specific tasks and fielded against each other in a team battle. This competition also develops other skills like planning, cooperative work, organizing and the like.
	Imake.Wemake	The project seeks to unleash the creativity of young Filipinos aged 17-19 years old to enable them to discover their potentials and learn the process of using innovation to achieve a particular purpose. It is packed with competencies such as project proposal making, communication skills, critical and analytical thinking, engineering and technical skills, and the value of risk and failure analysis. More than anything it is founded on the values associated with creating, collaborating, and innovating to come up with a product, an application, or a process.
	Indie-Siyensya	Indie-Siyensya is a science film-making competition organized by the Science Education Institute of the Department of Science and Technology (DOST-SEI) as a pioneering step on bringing science closer to the youth and the general public through film.
	Philippine Mathematics Olympiad (PMO)	PMO is the oldest and most prestigious nationwide mathematics competition among secondary school students. It is designed to select the best students in mathematical problem solving in the Philippines. This is to be done through three levels of competition beginning from the elimination stage, followed by the area stage
	BPI-DOST Best Project of the Year	The Best Project of the Year is an award given by the BPI Foundation and the DOST through SEI, in recognition of outstanding students who conduct research in mathematics, physics, chemistry, engineering, computer science, biology and environmental science. The projects are judged according to relevance and impact to knowledge advancement, viability for commercial production and marketability, originality and uniqueness of study, and adherence to scientific soundness.
	Philippine Participation to International Mathematics Olympiad (IMO)	IMO is a competition that allows high school students to reach the pinnacle of excellence and achievement in mathematics. The Institute provide financial support to delegates while other technical and management support came from Mathematical Society of the Philippines.
	Strategic Communication Plan for the Promotion of S&T HRD, Science Education Innovation and Youth Science Programs	The project captures the entire gamut of communication strategies that will be employed to get to the target audience of SEI. It involves the use of appropriate media channels that are deemed appropriate to the target audience. This will be done through the production and publication of news and feature stories on SEI's different programs and beneficiaries, broadcast feeds to talk shows, production of videos on scholars, mobilization of scholars' association, production of corporate collaterals for the Institute, as well as the conduct of activities that are reflective of popular culture.
	Youth Excellence in Science (YES) Award	It is a DOST award for exemplary achievement of the youth in the fields of science and mathematics. Recipients of this award are Filipino students who win gold, silver and bronze medals in the individual or team category in international science and mathematics competitions. They are considered to be a value to DOST's quest for excellence and shall be included in the roster of honorable young men and women of science.
Researches/ Studies/ Surveys in Science Education and S&T HR	Tracer Study of DOST Scholars	The study is aimed at tracking the scholar-graduates of the various scholarship programs being implemented by the SEI-DOST, with the ultimate objective of determining the impact of these programs to individual and/or national development. This will provide the agency with a clear view of how the produce of its science scholarship programs are doing in the real world and improve the programs it is presently undertaking.
	Migration of S&T Human Resources	The study is undertaken to come up with a baseline information to measure the outflow of S&T human resources to foreign countries and better understand the factors contributing to the gap in the supply of S&T human resource in the country.

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	Human Resources in S&T (HRST) in the Philippines	This project is a benchmark study on establishing estimates of the stock of Human Resources in Science and Technology (HRST) in the country using secondary/ census data from NSO. Together with the data from the Migration studies, a better picture of the status and supply of HRST in the country will be obtained.
	Philippine Facts and Figures: S&T HR Indicators	This project intends to provide a handy reference containing recent statistics on indicators of S&T human resource in the country, such as enrollment in and graduation from S&T courses, S&T scholarship beneficiaries, migration data, R&D involvement, and other data.
	The Future S&T Human Resource Requirements in the Philippines: A Labor Market Analysis	The research aims to develop a comprehensive report on the future S&T job requirements in the Philippines to inform policy related to S&Y Human Resource Development.
	A Project on Perception of Science Among Filipino Grades 7 and 10 Students in the Philippines (Y 2)	The project aims to determine and inquire into the perception and appreciation of Science by Grades 7 to 10 students using qualitative research methods. Results of this project will pave way for the development of a communication and media plan to promote science among Filipino Grades 7 to 10 who are potential supply to S&T human resource development.
STEM Teacher Trainings	Science Teacher Academy for the Regions (STAR)	(STAR) is a pool of capacity building efforts aimed to improve the teaching and learning of STEM. STAR is also in response to the general need of schools for more qualified STEM teachers especially with the shift of our education system to K to 12 curriculum. It has strengthened teachers' knowledge and competence for more effective delivery of STEM instructions by establishing linkages with 16 partner universities in regions nationwide. Table below shows the number of beneficiaries of the program.
	Establishing Linkages with Academe, Industry and Research Institutions for Capacity Building in STEM Education	In order to establish and maintain local and international linkages, the project will be composed of the following activities: a) support the participation of the country in international studies like TIMSS or Trends in International Mathematics and Science Study in science and mathematics education; b) network with education leaders and organizations; c) provide access to international meetings and for a, locally and abroad for Project STAR trainers and/or program implementors; and d) acquire learning resources in science education.
	Strengthening the Capacity S&M Teachers on DRRM	The project intends to design, develop and conduct a training course for teachers and school administrators on disaster risk reduction and management; enhance scientific knowledge of teachers on natural disasters and climate change; and communicate/transfer knowledge to students to help them cope up with disasters should it occur.
	Science Education to Strengthen the Capacity of Older Persons	This is a seminar that consists of a series of lectures, demonstrations, workshops and activities associated with growing old. Participants are science and mathematics teachers who are 60 years old and above. Health professionals from government and non-government agencies will serve as resource persons.
	Training Workshop for Non-Science Major Teaching Biology	The project is composed of two (2) phases, module development and the teacher training. It aims to develop modules in content and pedagogy for teachers who are teaching Biology without major in the subject and to conduct teacher training on the modules developed to the said teachers.
	Teaching Science to Indigenous Pupils	This is a training of elementary teachers coming from schools where most pupils, if not all, are indigenous. It aims to train teachers on how to teach science concepts to indigenous pupils using appropriate materials available in the local environment and ideas that are culture-based and familiar to them.
	Projects for PWDs	A project specifically designed to help teachers to be more effective in teaching science to students with disability.
	Training of Teachers from Small Private Schools	The project proposes to train teachers from small private schools in content and pedagogy. The training design will depend on the result of a survey on needs assessment and/or consultation with stakeholders of private schools.
	Capacitating Scholar-Graduates with Teaching Pedagogy	A 3-Day training workshop consisting of series of lectures, lesson planning, hands-on activities and demonstration teaching. This will expose them and give them the experiences to make teaching easier and learning easier, too.

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Innovative Approaches in Science Education	Access to Resources and Innovations in Science Education	An interactive smart classroom and training facility which provides offline and online learning and training resources on science and mathematics composed and equipped with new and emerging technologies.
	DOST Courseware Mobile Application (CMAPP)	A mobile application of the locally-produced DOST courseware for elementary and secondary levels that can be accessed through smart phones and tablets.
	InnoBox: Search for the Most Innovative Non-Digital Teaching and Learning Resources in Science	<p>The InnoBox is a competition for elementary and secondary teachers to design and develop innovative resources in science in non-digital format. In this project, innovative resource material is defined as any educational material used in teaching and learning of science which may be a new resource material or can be an existing material but has a new usage.</p> <p>This project is an avenue for the teachers to showcase their most innovative idea in teaching science. It will also feature the use of indigenous materials which will be required for schools who are interested to join.</p>
	Development of Storybooks	The project aims to develop at least 10 simple and easy to understand storybooks that feature selected topics in science and mathematics education intended for six (6) to eight (8) years old children.
	Science and Mathematics Applications and Other Related Technologies (SMART)	Science and Mathematics Applications and other Related Technologies (SMART) is a collection of applications both for mobile devices and personal computers produced by the Science Education Institute which features the DOST Courseware in science and mathematics, Siyensya-bilidad, Strategic Intervention Materials for Teaching with Augmented REality (SIMATAR) and other related technology-enabled applications that could be downloaded, saved and operated through various platforms such as MS Windows, Google Android and Apple IOS-running devices.
	Video Storytelling	This project will capture, via videos, all the storybooks developed by DOST-SEI in 2018 and 2019. These videos will be uploaded to social media sites (e.g. Facebook, Twitter, etc.) and Youtube.
	Virtual Laboratory Application in Science (VLAS)	The virtual laboratory (VL) is a simulated learning environment that allow students to have a complete experience of online laboratory experiments without going into a physical laboratory. Similar to the traditional laboratory, the virtual laboratory simulations support science teaching through demonstration of theoretical concepts, helping students familiarize scientific apparatus, and helping them understand the specific method. The VL also allow students to perform and repeat experiments without any risk of danger.
	Serious Educational Games for STEM Learning	Serious games combine learning strategies, knowledge and structures and game elements to teach specific skills or concepts. This project plans to combine select mathematics concepts into the concept of serious games thus giving students an opportunity to learn math in a fun way, even at school or at home.