

DEPARTMENT OF SCIENCE AND TECHNOLOGY

PROGRAMS & SERVICES

JULIUS CAESAR V. SICAT, *PH.D.*

REGIONAL DIRECTOR, DOST-REGION 3

MANDATE

Executive Order No. 128 mandates the DOST to provide central direction, leadership and coordination of scientific and technological efforts and ensure that the results therefrom are geared and utilized in areas of maximum economic and social benefits for the people.





My top priorities will be on R&D to address pressing concerns on health, agriculture and the process industries.



<http://newsbytes.ph/2016/06/08/with-new-chief-dost-prepares-return-to-conservative-rd-roots/>

Sec. Fortunato T. de la Peña
DOST Secretary



Science for the People

*DOST's response to the
10-point socio-economic
agenda of PRRD*



Science for the People

*DOST's response to the
10-point socio-economic
agenda of PRRD*

1. R&D to address pressing problems

2. R&D for productivity

3. R&D to tap, manage, and store renewable energy resources

4. R&D to apply new technologies across sectors

5. Disaster risk reduction and climate change adaptation

6. Maximize utilization of R&D Results through Technology Transfer and/or Commercialization



Science for the People

*DOST's response to the
10-point socio-economic
agenda of PRRD*

7. Accelerated R&D Program for Capacity Building of Research and Development Institutions and Industrial Competitiveness

8. Assistance to the Production Sector

9. Upgrading of Facilities and Improvement of S&T Services

10. Human Resource Development for Science & Technology

11. Capacitate and Utilize Institutions in the Regions – SUCs who do R&D and Develop Human Resources in S&T

12. Collaboration with industry, academe, and international institutions



AMBISYON NATIN 2040

Malasakit

Pagbabago

Kaunlaran



Harmonized National R&D Agenda



National Integrated Basic Research Agenda (NIBRA)

Health

Agriculture, Aquatic and Natural Resource (AANR)

Industry, Energy, and Emerging Technology

Disaster Risk Reduction and Climate Change Adaptation (DRR CCA)





Harmonized National R&D Agenda



National Integrated Basic Research Agenda (NIBRA)



- Water Security
Watershed studies, water quality, accessibility and availability
- Food and Nutrition Security
Food safety, biodiversity studies
- Healthful Lifestyle
Fundamental studies on natural products development, animal health, social dimensions on health
- Clean Energy
Alternative energy
- Sustainable Communities
Vulnerable ecosystems, data collection on natural phenomena, environmental and anthropogenic activities
- Re-engineering the Philippines towards inclusive nation-building
Documentation of indigenous knowledge, data collection on social phenomena, education, national security and sovereignty, arts, history and culture

Health



- Drug Discovery and Development
- Diagnostics
- Genomics/Molecular Technology
- Functional Foods
- Hospital Equipment and Biomedical Devices
- Information and Communication Technology for Health
- Nutrition and Food Safety
- Disaster Risk Reduction-Health
- Climate Change Adaptation-Health

Agriculture, Aquatic and Natural Resource (AANR)



- AGRICULTURE
 - Crops
Germplasm research; Varietal improvement and selection; Good quality planting materials (QPMs); Cultural management and crop production systems; Postharvest processing and product development
 - Livestock
Animal improvement; Improved reproduction, feeding and nutrition; Conservation and improvement of native animals; Vaccine, biologics and diagnostics; Detection of chemical residues and antimicrobial resistance; Decision support systems; Product development and processing
 - Fisheries and Aquaculture
Applied genomics; Culture systems; Culture of new cultivable species; Fish health, disease diagnostics and management; Nutrition, feeds and feeding systems; Postharvest handling, processing and product development; Automation of feeding, water and culture management and post production; Fishkill warning and mitigation systems and environmental management; Management of fisheries
 - Forestry
Development and sustainable management of tree plantations; HYV development of priority timber species; Production protocols for the production of QPM; Sustainable cultural management practices, harvesting and postharvest techniques and marketing strategies
- Socio-economics and policy research capacity building

Industry, Energy, and Emerging Technology



- Food and Nutrition Security
- Countryside Development
- Competitive Industries
- Delivery of Social Services
- Intelligent Transportation Solutions
- Renewable Energy and Energy Storage Solutions
- Human Security
- Natural Resources and Environment
Biodiversity; Watershed management and utilization; Soil management and rehabilitation; Agricultural and forest waste-based product development; Climate change strategies and decision support tools; Resource assessment and monitoring; Habitat management; Marine environmental management; Innovative systems for unique landscapes and ecosystems
- Technology Transfer
Upscaling of technology transfer and commercialization; New and innovative extension modalities; Technology business incubators

Disaster Risk Reduction and Climate Change Adaptation (DRR CCA)



- Observation and Monitoring Networks
- Technology Development and Application for Monitoring
- Modelling and Simulation for Improvement of Monitoring and Forecasting
- Hazards, Vulnerability and Risk Assessment
- Warning and Risk Communication
- Technology Development and Application for Climate Change Mitigation and Adaptation
- Technology Development and Application for Disaster Risk Management



Endeavors to significantly accelerate Science, Technology and Innovation (STI) in the country through **massive increase in investment on S&T Human Resource Development and R&D through the program**

- A. Program Expansion in 10 areas
- B. New Programs in 5 areas
- C. S&T Human Resource Development
- D. Accelerated R&D Program for Capacity Building of Research and Development Institutions and Industrial Competitiveness

Science For Change Program

S4CP



A. Program Expansion (10)

1. Health Self Sufficiency
2. Renewable Energy
3. Nuclear Science for Energy, Health and Agriculture
4. Climate and Environmental Sciences
5. Food and Nutrition
6. Agricultural and Natural Resources
7. Biotechnology for Industry, Agriculture, Health and Environment
8. Technology Business Incubation
9. Foreign Scholarships for STI
10. Promotion of Culture of Science

Science For Change Program

S4CP



B. New Programs

1. Human Security R&D
2. Strengthening of R&D and S&T Services in the Regions through infrastructure (R&D Centers)
3. Space Technology and ICT Development
4. S&T for Creative Industries, Tourism Industry and Service Industry
5. Artificial Intelligence: From HRD to R&D Industry

Science For Change Program

S4CP



C. S&T Human Development
SEI Grand Plan

***Science
For
Change
Program***

S4CP



D. Accelerated R&D Program for Capacity Building of R&D Institutions and Industrial Competitiveness (4)

1. Niche Centers in the Regions for R&D (NICER)
2. R&D Leadership Program (RDLead)
3. Collaborative R&D to Leverage Philippine Economy (CRADLE) for RDIs and Industry
4. Business Innovation through S&T (BIST) for Industry

Science For Change Program

S4CP





The Regional Offices- **DOST's prime-mover for countryside development**

- Promote and accelerate technology adoption
- Stimulate innovation
- Reduce disaster risks and improve resiliency





SETUP



**STANDARDS AND
TESTING
LABORATORY**

STI Programs in the Region



**S&T
SCHOLARSHIP**



S&T PROMOTION



STI Programs in the Region



HOW ?

- ✓ Infusion of appropriate technology
- ✓ Training, technical assistance and consultancy services
- ✓ Functional packages and label
- ✓ Attainment of product standards and testing services

and competitiveness of MSMEs through

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STI Programs in the Region



Priority Sectors

Food processing | **Horticulture**
Furniture, gifts, décor & handicrafts | Forestry & livestock
Health & wellness products | **Metals & Engineering**
ICT | Marine & aquatic resources
Other regional industry priorities



STI Programs in the Region



Add value to local products and processes through S&T interventions

Enhance competitiveness of MSMEs through better products and processes

Program Framework

Contribute to the creation of a robust local economy powered by highly competitive MSMEs

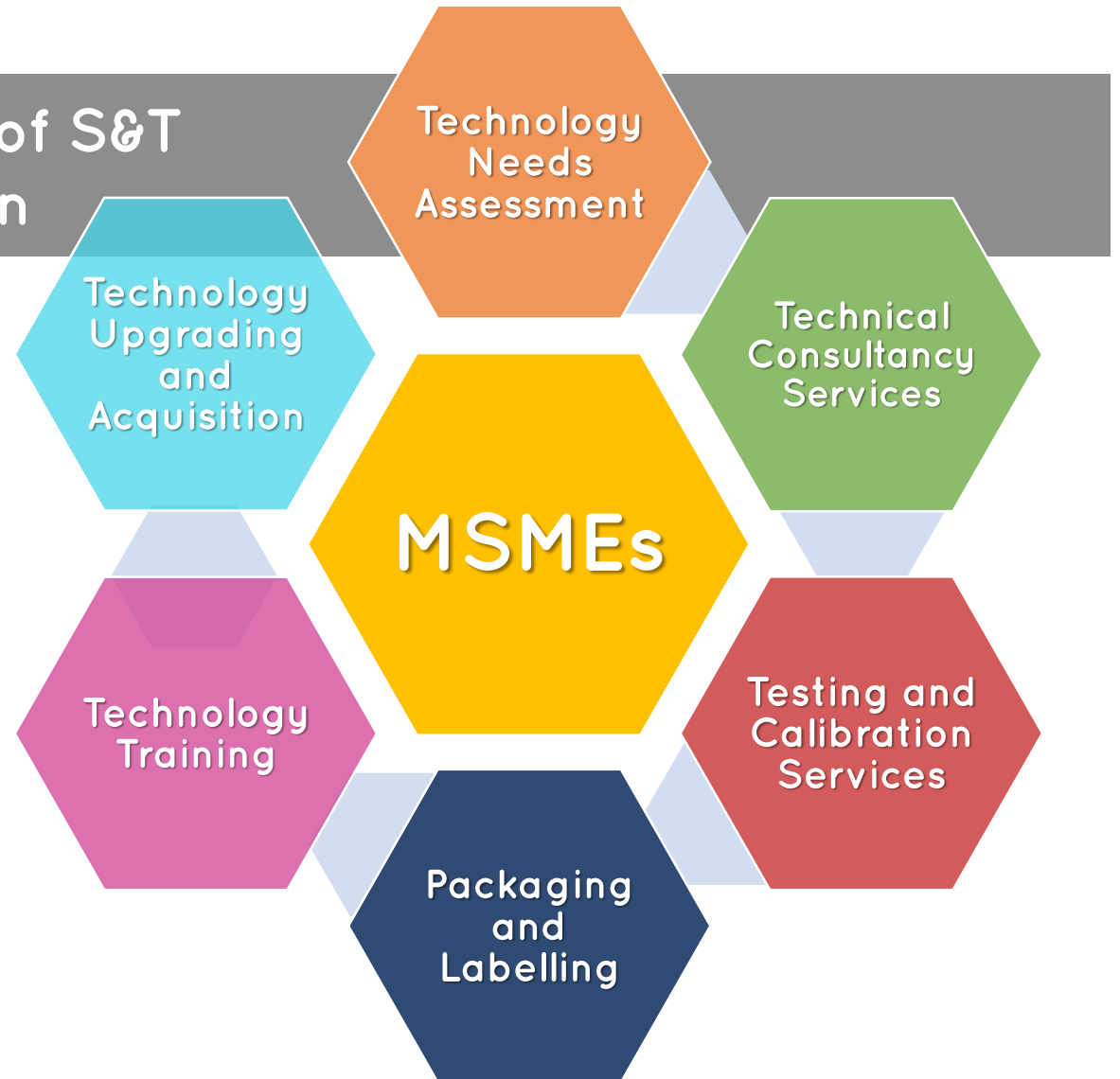
Create employment, generate revenues (including dollar earnings), help alleviate poverty and social unrest



STI Programs in the Region



Package of S&T Innovation



STI Programs in the Region



The **Regional Standards and Testing Laboratories (RSTL)** provides clients with chemical, microbiological testing and analysis services

The **Regional Metrology Laboratory (RML)** provides clients with mass, volume and thermometry testing and calibration services.



STI Programs in the Region

A nationwide program that **provides scholarship to talented and deserving students to pursue priority courses in science, mathematics and engineering.**



STI Programs in the Region



A regional strategy to **ensure promotion of various scientific and technological programs, projects and services in the dissemination of relevant information.** It also covers information networking, sharing and showcasing of latest R&D breakthroughs and innovations



Food Innovation and Commercialization Center



National Program Initiatives for Sustained Economic Growth

Community Empowerment through Science and Technology (CEST)



Complementary Food Production



National Program Initiatives for Sustained Economic Growth

Sustainable Dengue Vector Management Program (SDVMP)

PCHRD-supported study serves as an effective dengue surveillance tool in Ph schools

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With the rise of dengue cases especially among children, a Philippine Council for Health Research and Development (PCHRD)-supported study offers a predictive model that estimates mosquito density in public elementary and high schools in the Philippines even without active vector surveillance.

The *School-based Mosquito Abundance Model (SMAM)* study employs a climate-driven model which forecasts the trends of the ovitrap index (OI), an effective mosquito surveillance tool, in schools located across the four climate types of the country.

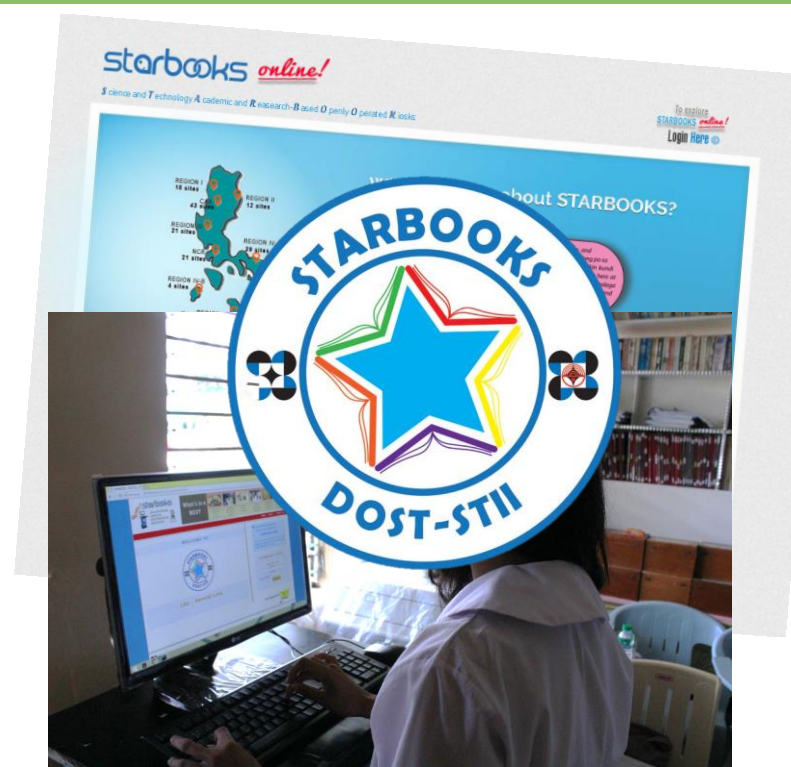
The study is led by Prof. Lilian De Las Ligas and Prof. Lisa Grace S. Bersales of University of the Philippines Manila (UPM).



Deployment of Early Warning Systems (DEWS) Project

National Program Initiatives for Sustained Economic Growth

Science and Technology Academic Research-Based Openly Kiosk Station (STARBOOKS)



Integrated Gold-Copper Mineral Processing Pilot Plant

National Program Initiatives for Sustained Economic Growth

Fabrication Laboratory (FabLab)

Time to read 1 minute

DOST, UP opens first gold-copper processing plant

1398 Shares
Friday, March 10, 2017
By ELAMAE MEMBRERE



BAGUIO. Science and Technology Secretary Fortunato dela Peña tests the non-mercury and non-cyanide gold extraction protocol facility in Gumatdang, Itogon, Benguet. The UP-DOST field testing of the integrated gold-copper mineral processing joint project is the first in the Cordillera region. (Milo Brioso)

WPU to host design and fabrication laboratory

Feb 2, 2018 5:20 pm Gerardo Reyes Jr. CITY NEWS, NEWS OF THE DAY 231



Provincial Director Pacifico Sariego III (3rd from right, in green polo shirt) of DOST consults with the representatives of the WPU and the Palawan International Technology Business Incubator (PITBI) for the establishment of an Innovation Laboratory in the province. (photo courtesy of DOST-PSTC Palawan)



OneLab

***National
Program
Initiatives for
Sustained
Economic
Growth***

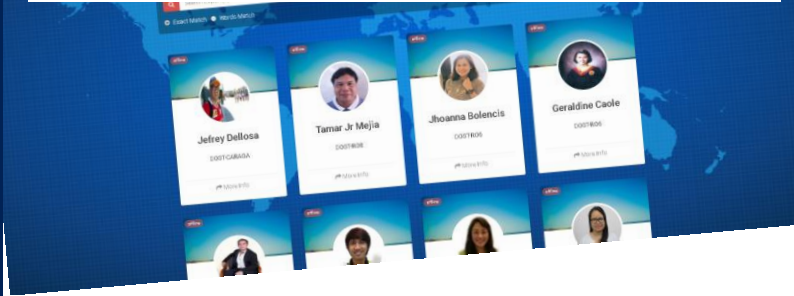
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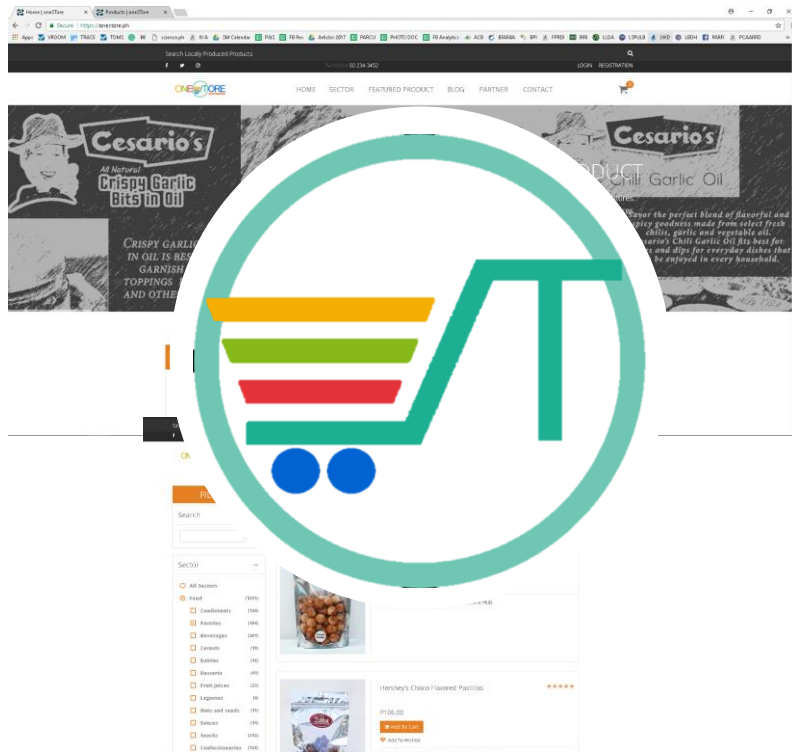
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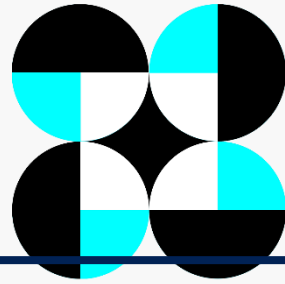
OneStore Project



National Program Initiatives for Sustained Economic Growth

RxBox





DEPARTMENT OF CYBERNOETICS TECHNOLOGY
Thank you!
PROGRAMS & SERVICES