



## FY 2026 NATIONAL EXPENDITURE PROGRAM

# DEPARTMENT OF SCIENCE AND TECHNOLOGY

HOUSE OF REPRESENTATIVES  
AUGUST 27, 2025

*Solutions and Opportunities for All*



[www.dost.gov.ph](http://www.dost.gov.ph)



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DOST Philippines

#OneDOST4U



# DOST OVERVIEW

## MANDATE

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. (E.O. 128)

## MISSION

To direct, lead, and coordinate the country's scientific, technological and innovative efforts geared towards maximum economic and social benefits for the people.

## VISION

DOST as the leading enabler and provider of science, technology and innovation (STI) explicit solutions towards national development.



# ORGANIZATIONAL STRUCTURE

## DOST OFFICE OF THE SECRETARY

### SECTORAL PLANNING COUNCILS (3)



**PCAARRD**

Philippine Council for Agriculture,  
Aquatic and Natural Resources  
Research and Development



**PCHRD**

Philippine Council for Health  
Research and Development



**PCIEERD**

Philippine Council for Industry, Energy  
and Emerging Technology Research  
and Development

### COLLEGIAL AND SCIENTIFIC BODIES (2)



**NAST**

National Academy of Science  
and Technology



**NRCP**

National Research  
Council of the Philippines

### R&D INSTITUTES (7)



**ASTI**

Advanced Science  
and Technology  
Institute



**FNRI**

Food and Nutrition  
Research Institute



**FPRDI**

Forest Products  
Research and  
Development Institute



**ITDI**

Industrial Technology  
Development Institute



**MIRDC**

Metals Industry Research  
and Development Center



**PNRI**

Philippine Nuclear  
Research Institute



**PTRI**

Philippine Textile  
Research Institute

### S&T SERVICES (6)



**PAGASA**

Philippine Atmospheric,  
Geophysical and  
Astronomical Services Administration



**PSHSS**

Philippine Science High School  
System



**PHIVOLCS**

Philippine Institute of Volcanology  
and Seismology



**SEI**

Science Education  
Institute



**STII**

Science and  
Technology  
Information Institute



**TAPI**

Technology Application  
and Promotion Institute

### REGIONAL OFFICES (17)

### PROVINCIAL S&T OFFICES (80)



# STRATEGIC PLAN



## DEPARTMENT OF SCIENCE AND TECHNOLOGY DOST STRATEGIC PLAN FRAMEWORK 2023-2028

### MISSION

To direct, lead, and coordinate the country's scientific, technological, and innovative efforts geared towards maximum economic and social benefits for the people

### CORE VALUES

SCIENCE: Service, Commitment, Innovation, Ethics, Nurturance, Collaboration, Excellence

### VISION

DOST as the leading enabler and provider of science, technology, and innovation (STI) - explicit solutions towards national development.

#### Outcome 1 HUMAN WELL-BEING PROMOTED

- S1: Achieve quality science education and enhance knowledge and socio-economic contribution of S&T talents
- S2: Ensure food security
- S3: Improve health and nutrition
- S4: Improve access to clean water, clothing, shelter, and efficient transport systems

#### Outcome 2 WEALTH CREATION FOSTERED

- S5: Advance research, development and innovation
- S6: Scale-up technology adoption, utilization and commercialization
- S7: Strengthen provision of STI support services for the production and manufacturing sectors
- S8: Boost intellectual property protection and management for locally-developed technologies

#### Outcome 3 WEALTH PROTECTION REINFORCED

- S9: Advance disaster risk reduction management and processes
- S10: Improve monitoring and warning systems for risk reduction
- S11: Strengthen capacities for local disaster risk reduction and management (DRRM)
- S12: Enhance climate and disaster risk resilience

#### Outcome 4 SUSTAINABILITY INSTITUTIONALIZED

- S13: Intensify environmental sustainability
- S14: Enhance ecosystem resilience
- S15: Establish smart and sustainable communities
- S16: Improve access to clean and green energy

STRATEGIES

#### Outcome 5 DOST SYSTEM GOVERNANCE STRENGTHENED AND HARMONIZED

- S17: Institutionalize science communication
- S18: Build robust institutional capacity
- S19: Roll-out S&T-enabled systems for seamless operations
- S20: Enhance linkages for science, technology, innovation, and entrepreneurial cooperation

STRATEGIES



# DOST

## Major Programs, Activities and Projects (PAPs)





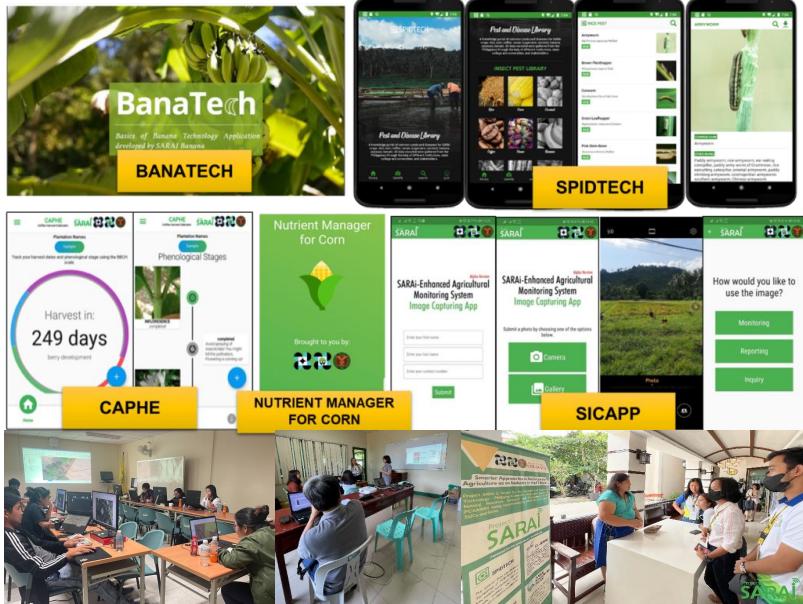
# PILLAR 1: PROMOTING HUMAN WELL-BEING

# Food Security

## PILLAR 1

PROMOTING OF HUMAN WELL-BEING

### Smarter Approaches to Reinvigorate Agriculture as an Industry in the Philippines (SARAI) Program



Trained LGUs and partners on SARAI in **4 provinces**; and initiated SARAI CeNTRO planning with DOST Regional Offices and LGUs.

### Coconut Hybridization Program (CHP) Program



Studied **15 coconut types**, fertilized **670 palms** at CAPSU, and **trained experts** on better farming methods.

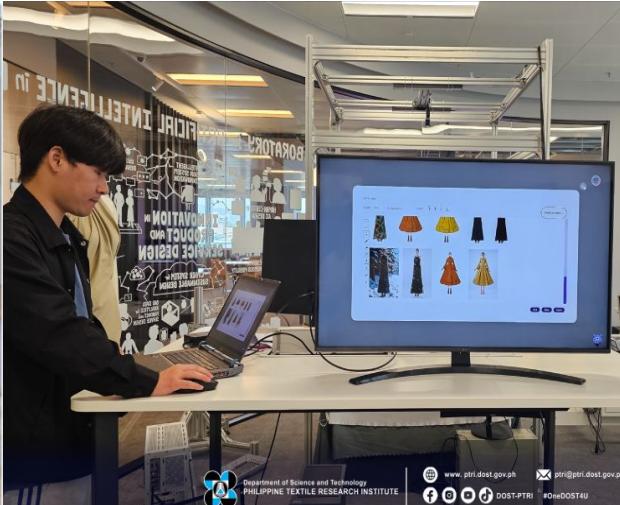
# Food Security

## Advancing Computing, Analytics, Big Data and Artificial Intelligence in the Philippines (ACABAI-PH)

### DOST-Nexus for Artificial Intelligence Research and Application (DOST-NA/RA)



### TexSCAN: Textile Screening and Quality Control using Artificial Intelligence (AI) and Neural Networks



### Integrating AI technology in Philippine Food Composition Table (PhilFCT) Database



## Food Security

### Development of Local Agricultural Machinery

**i-POND: LoRaWAN-based Pond Water Quality Control and Monitoring System for Shrimp Farms**



**Automated Control and Monitoring System for Recirculating Aquaculture System (RAS)**



**ISDA CV: Integrated Seafood Dimension Acquisition using Computer Vision**



## Food Security

### FASTRAC LITE: Development and Validation of Robot for Optimized and Autonomous Mission-Enhancement Responses (ROAMER)



Built and tested a robot prototype, improved its features, and conducted field demonstrations at **Dole Philippines** (banana plantation) and **UP Los Baños** (cacao plantation).

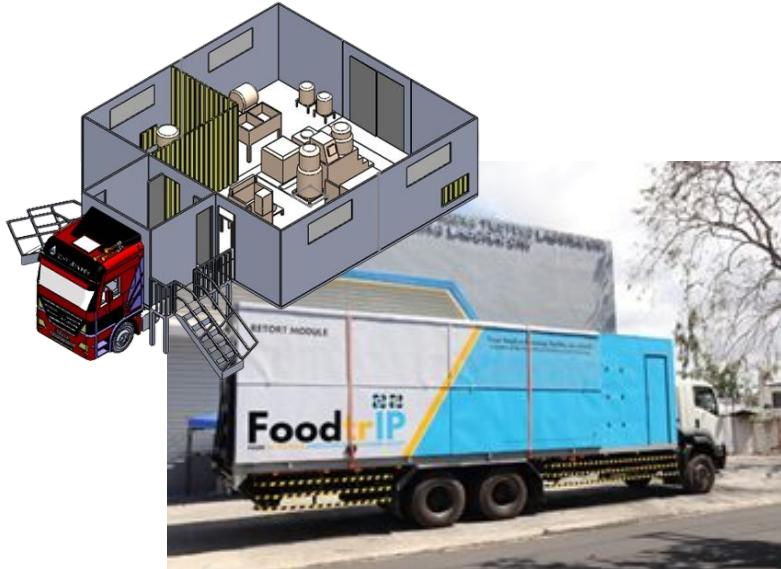
### Smart Aquafarm Feeder and Monitoring System in Highly Turbid Condition (SaqFeeder)



Started data collection with ASEAN-IVO team and **developed a submersible camera and auto feeder** for fish farms.

## Food Security

### Mobile Modular Food Processing Facility



Deployed **5 FoodtrIP systems nationwide**, field-tested new food products, and launched aseptic processing at DOST-ITDI.



Upgraded agri-trading centers with better packaging and logistics for fresher, semi-processed products.

**Benguet Cold Chain (BCC):**  
Fully operational; License to Operate secured Nov 2024

**Agrizkaya & Sapang Cooperatives:** Equipped with advanced tools; licenses/electrical setup in progress; exploring solar energy for sustainability

**Davao Food Terminal Complex (DFTC):**  
Operational; cold storage services to start in 2025 to cut postharvest losses

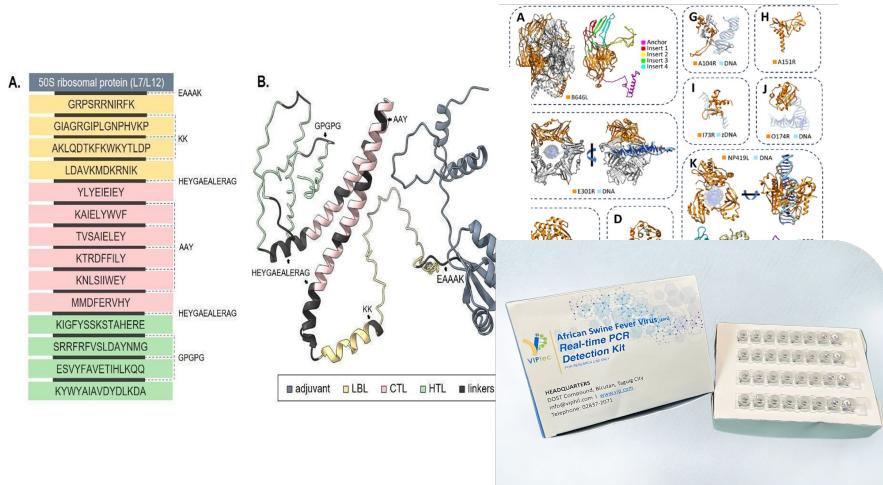
# Food Security

## Improving Sugarcane Productivity in Low-yielding SRA-blocked Farms



Set up 4 pilot sites with AFIS and began sugarcane farming; completed first cropping in 5 sites and started ratooning in 3 sites

## Research on African Swine Fever (ASF)



- Developed locally optimized **TUSLOB®** and **VIPtec®** diagnostic kits for rapid, field-ready ASF Virus detection.
- Designed a **stable, antigenic, and non-allergenic ASFV vaccine** construct from 100 annotated proteomes.
- Initiated international collaboration with the University of California, Davis to advance ASFV research.

# Food Security



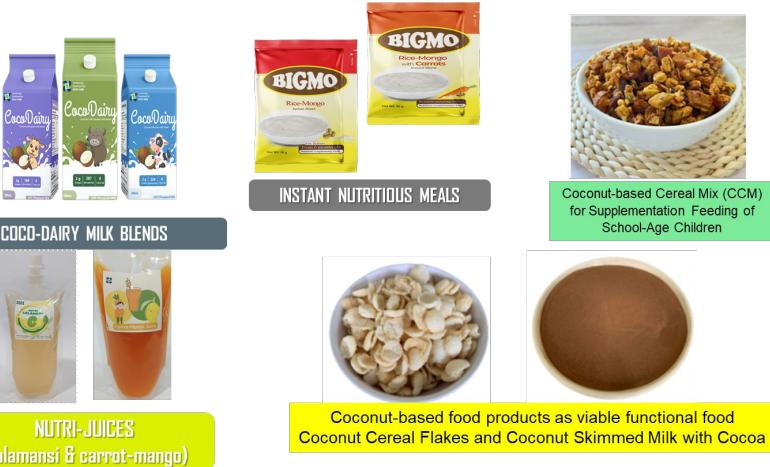
## Upcoming Initiatives:

- **NANO AIRS:** Uses renewable energy to boost oxygen in fish ponds, helping fish grow better and farms run greener.
- **Coconut Scale Insect Program:** Combines research and action for long-lasting ways to control coconut pests.
- **HARABUST:** Promotes smart, affordable pest control to protect sugarcane crops, cut costs, and boost profits.
- **RENEW Mango:** Uses eco-friendly nutrient, pest, and water management to boost mango harvests by 10%.
- **Milkfish Aquaculture:** Develops genetic tools to improve fish breeding and tracking, cutting growth time and costs.



# Health and Nutrition

## R&D Program on Food Product and Technology Development



## Ready-to-Eat: Pack of Hope and Pack of Duty



Developed **RTE** meals (*chicken corn soup, beef curry, bangus sisig, etc.*)

Continued field testing of RTE meals and developed self-heating packaging for retort pouch products

Developed and tested fortified foods, healthy drinks, and functional products; completed plant-based beverages, improved Nutribun, and seaweed-based salt reducers.

## Health & Nutrition

### National Nutrition Surveys (NNS)



Shared 2023 NNS results at National Nutrition Summits and began 2025 nutrition survey data collection.

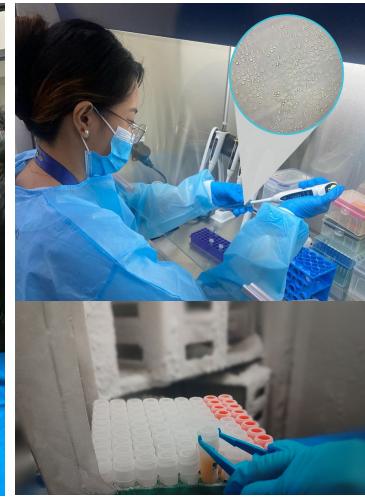
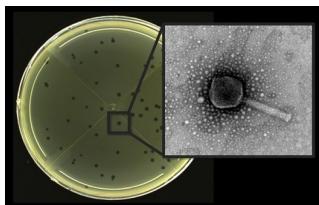
### Omic Technologies for Health Program



(1) Developed improved **Sexual Assault Investigation Kit (SAI.Kit)** and moved it toward commercialization; (2) Supported **Philippine Cancer Center's 2024–2028 plan** with multi-omics; and (3) Completed phase 1 of Filipino Genomes Research and shared findings at Pagtanaw symposium

# Health & Nutrition

## Virology and Vaccine Program (VIP)



- Advanced ASF research: sequenced first **PH ASF genome**, developed **ASFv DNA Extraction & qPCR kits**, and validated **TUSLOB®/VIPtec®** kits with BAI
- Expanded innovation pipeline: designed **vaccine candidates**, developed **ASF-HEVNP prototype**, and filed patents/trademarks
- Strengthened research capacity: trained **90 staff**, established key facilities (**BSL-2 lab**, **TEM**, **confocal microscope**, **Plant Virology Lab**), and completed major infrastructure
- Generated knowledge outputs: created databases (*papaya diseases*, *plant metabolites*, *viral proteins*), identified **60 antiviral compounds**, produced **24 publications**, and won **9 awards**

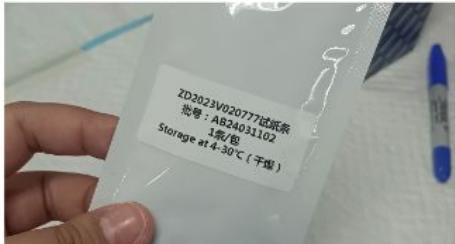
# Health & Nutrition

## Diagnostics Program

### Schisto POC (e-ASIA)



Materials and POC tests utilized during field collection. This includes the LFIA kit and the cotton-syringe utilized for the extraction of DNA.



The LFIA kit from QIMR Berghofer Medical Research Institute.

### SMART RITM (e-ASIA)



Initial run of health facility surveys in Kalamansig, Sultan Kudarat.



RITM Research Team with the RHU staff and BHWs.

### HIV-QUASR LAMP



Manila HealthTek's Lab-in-a-Mug, utilized to perform all LAMP assay experiments done by the project.



Transilluminator utilized by the project to visualize QUASR-LAMP results.

- Validated CRISPR-Dx for accurate detection of SARS-CoV-2 and tuberculosis.
- Produced a locally made Cas12a enzyme with performance comparable to commercial versions.
- Advanced the HIV-1 QUASR-LAMP detection kit with strong specificity and sensitivity.
- Developed and began testing an AI-based image analysis prototype for cancer diagnosis and surgical assistance.
- Initiated three new diagnostics projects.

# Health & Nutrition

## Re-emerging and Emerging Diseases (RED) Program



*Presentation and Launching of the Antimicrobial Resistance (AMR) R&D Scoping and Assessment Results*



*Whole genome sequencing library prep underway for bacterial samples as part of the AMR Genosurv Project.*

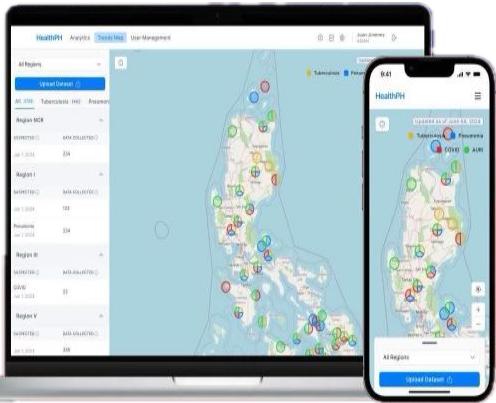
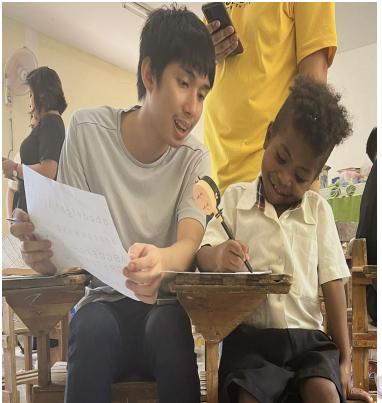
Prioritized AMR research under the RED Program in support of ICAMR.

- Completed **AMR R&D Scoping and Assessment** to identify research gaps.
- Advanced the **PASYENTE** project with ML models, database, APIs, and mobile/web apps for dengue decision support.
- Launched **11 new research projects**, including on measles, STI testing in women, and liver health.

*The PASYENTE Project: A clinical decision support system for Dengue management*

# Health & Nutrition

## Digital and Frontier Technologies for Health



- Developed **i-SULAT system and Pen** for early childhood handwriting assessment.
- Created **HealthPH dashboard** to map disease symptoms from social media data.
- Developed **AINA food recognition system** with 51,000-image database and prototype app for dietary assessment

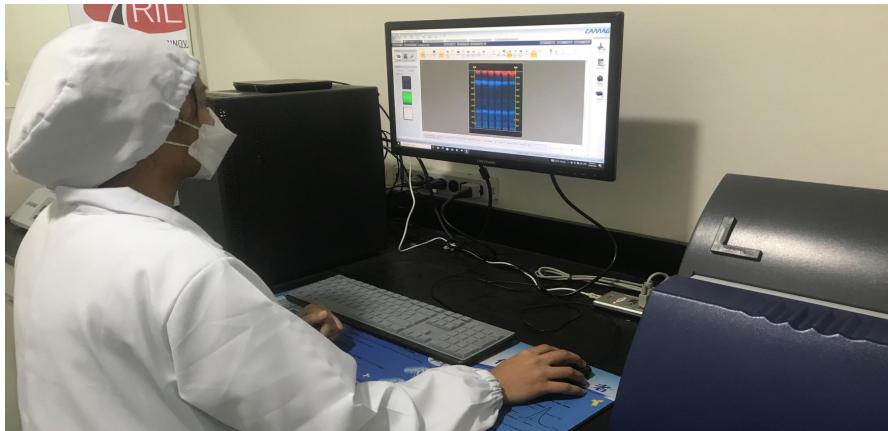
## Biomedical Engineering for Health



- Delivered **46 high-quality prostheses** via a mobile workshop.
- Integrated **mobile assistive van service** into PhilHealth benefits.
- Signed MOU with **Pasig City** to continue prosthetics support.

# Health & Nutrition

## Tuklas Lunas Program



- Developed **standardized dosage forms: 4 anti-inflammatory, 5 anti-diabetes, 5 anti-cancer, and 1 multi-indication formulation**, all pre-clinical ready.
- Created a **molecular docking pipeline**, narrowing **11 million compounds** to **5 promising candidates for prostate cancer treatment**.
- Secured a **patent for an isolated Streptomyces strain and its antibiotic metabolites**.
- Isolated **10 bioactive compounds** undergoing bioactivity and toxicity testing.
- Began pilot-scale manufacturing and pre-clinical studies of fern-based ointments for anti-inflammatory use, with Phase 1 trial preparations underway.

## Health & Nutrition

### Upcoming Initiatives



**Cerv.ai+**: Uses AI to improve early detection of cervical cancer by analyzing screening images more accurately.

**UP SUQAT**: Aims to ensure herbal medicines and supplements are safe, pure, and effective through standard testing.

**AUS-MF**: Develops automated systems to disinfect medical facilities, keeping them cleaner and safer for staff and patients.

## Access to Clean Water

### Desalination Water Treatment System for Brackish and Seawater in Coastal Areas



Tested and improved **seawater pre-treatment** using Manila Bay samples; Designed **solar-powered system**; and Built and evaluated **desalination system** for trial and full-scale use.

### Upgraded Emergency Water Disinfection System (UpEDS / SAFEWATRS)



Deployed **22 SAFEWATRS units** in multiple locations, including *Ilocos Sur, Tarlac, Batangas, Pampanga, La Union, Pangasinan, Quezon City, Rizal, Sorsogon, Masbate, and Zamboanga City*

Additional units deployed in Balibago Waterworks (Arayat) and Malalison Island (*Culasi, Antique*)

# Education

**PILLAR 1**

PROMOTING OF HUMAN WELL-BEING

## Secondary



## Undergraduate



## Graduate



### DOST Scholarship Program

#### No. of Supported Scholars

SY 2024-2025

**10,619**

SY 2025-2026

**10,807**

#### No. of Graduates

Class 2024

**1,508**

Class 2025

**1,592**

**46,234**

**48,615**

**4,524**

**5,091**

**9,793**

**9,927**

**1,219**

**1,471**



### Upcoming Initiative:

#### BEST for IP:

Supports Indigenous Peoples in pursuing STEM education, helping them become skilled professionals and community leaders through STI.

# Socio-economic Contribution of S&T Talents

PILLAR 1

PROMOTING OF HUMAN WELL-BEING

## Balik Scientist Program (BSP)



**51** Balik Scientists engaged  
(Jan.-Dec. 2024)

**32** Balik Scientists engaged  
(Jan.-Jun. 2025)

## S&T Fellows Program



**63** S&T fellows engaged  
(Jan.-Dec. 2024)

**57** S&T fellows engaged  
(Jan.-Jun. 2025)



# PILLAR 2: FOSTERING WEALTH CREATION



*Solutions and Opportunities for All*



## Small Enterprise Technology Upgrading Program (SETUP)



# SETUP 4.0

Small Enterprise Technology  
Upgrading Program

Accomplishments	2024	2025 (As of June)
Firms/other entities assisted	22,271	8,857
Jobs created	9,223	3,539
STI interventions provided	18,243	5,579
Number of projects funded	659	169
Amount of funding assistance	P776M	P249M



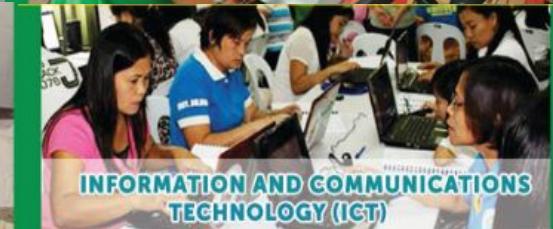
FOOD PROCESSING



FURNITURE



GIFTS, DECORS &  
HANDICRAFTS



INFORMATION AND COMMUNICATIONS  
TECHNOLOGY (ICT)



METALS & ENGINEERING



HEALTH AND  
WELLNESS PRODUCTS

# Support to Enterprises

## Technology Innovation and Commercialization (TECHNICOM) 2.0 Program



2024–2025 (1st Sem)

Supported 17 clients and disbursed **₱63.6M** to boost technology readiness levels.

## Expanded Venture Financing Program (eVFP)



2024–2025 (1st Sem)

Supported 11 startups/spinoffs with **₱46.35M** in funding for innovation commercialization.

<p><b>DOST-PCAARRD National Agri-Aqua Technology Business Incubation (ATBI) Program</b></p> <p>It aims to effectively support the use and commercialization of mature technologies in the AANR sector by establishing and developing viable agribusinesses through technology incubation.</p>
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<p><b>DOST-PCIEERD TBI Program</b></p> <p>It aims to help startup technology-based businesses by providing a range of resources, services and facilities needed during the development stage. The goal of TBI is to produce firms that will leave the incubation program financially viable and able to sustain operation and compete in the market</p>
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<p><b>TEKI in Health Program and HeaRTNovation Hubs Program</b></p> <p>It aims to support researchers and research institutions on pre-commercialization activities of health technologies and innovations for utilization through community adoption or creation of spin-off companies. The HeaRTNovation Hubs Program supports the establishment of innovation hubs.</p>
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## PCAARRD ATBI

<b>2025 Allocation</b>	P19.07M
<b>2026 NEP</b>	P46.01M

## PCIEERD TBI

<b>2025 Allocation</b>	P73.23M
<b>2026 NEP</b>	P74.37M

## PCHRD TBI

<b>2025 Allocation</b>	P8.95M
<b>2026 NEP</b>	P22.22M

## TOTAL

<b>2025 Allocation</b>	P200.12
<b>2026 NEP</b>	P171.14

95

TBIs across the Country

As of July 2025

PCAARRD - 25

PCIEERD - 59

PCHRD - 11

# DOST Startup Grant Fund (SGF) Program

**PILLAR 2**

FOSTERING WEALTH CREATION

## DOST-PCAARRD SGF

Intends to support startup/spinoff companies that are preferably under the DOST-PCAARRD ATBI Program planning to commercialize and/or are currently commercializing PCAARRD-funded/assisted technologies. This also includes non-PCAARRD-funded technologies which will be evaluated on a case-to-case basis.

## DOST-PCIEERD SGF

Provides funding support to technology-based startups in translating their early-stage technologies into market-ready products.

## DOST PCHRD SGF

Aims to provide financial assistance for the conduct of research and development (R&D) activities of Filipino-owned health startups to promote the health startup ecosystem within the country.

### PCAARRD SGF

2025 Allocation	P20.31M
2026 NEP	P25.00M

### PCIEERD SGF

2025 Allocation	P12.76M
2026 NEP	P58.21M

### PCHRD SGF

2025 Allocation	P5M
2026 NEP	P10M

### TOTAL

2025 Allocation	P55.31M
2026 NEP	P68.54M

**91**

**STARTUP  
Projects  
supported  
across the  
country**

**As of July 2025**

**PCAARRD - 21**

**PCIEERD - 61**

**PCHRD - 9**



## Community Empowerment through Science and Technology (CEST)

**744**

communities assisted  
(Jan.-Dec. 2024)

**401**

communities assisted  
(Jan.-Jun. 2025)



## Innovations for Filipinos Working Distantly from the Philippines (iFWD PH)

In 2024, the program trained 271 OFWs, supported 17 businesses, and partnered with DMW, OWWA, and others.; on the other hand, in 2025 (1st Sem), it trained 279 OFWs, supported 18 businesses, and joined the National Reintegration Network.

# Knowledge, Innovation, Science, and Technology (KIST) Parks



In 2024, the program adopted key KIST policies, added PCCI to evaluation committee, and boosted regional support.

In 2025 (1st Sem), the program drafted new KIST guidelines, oriented 33 HEIs, endorsed DLSU-Laguna, began evaluating University of Perpetual Help-Molino, and met with potential BatStateU KIST park locators

# One-stop Laboratory Services for Global Competitiveness (OneLab)

**PILLAR 2**  
FOSTERING WEALTH CREATION



## Regional Standards and Testing Laboratories

## Research and Development Institutes



## Non-DOST Laboratories



## International Laboratories

VIETNAM

intertek  
Total Quality. Assured.

MALAYSIA



PHILIPPINES

IRRI

THAILAND

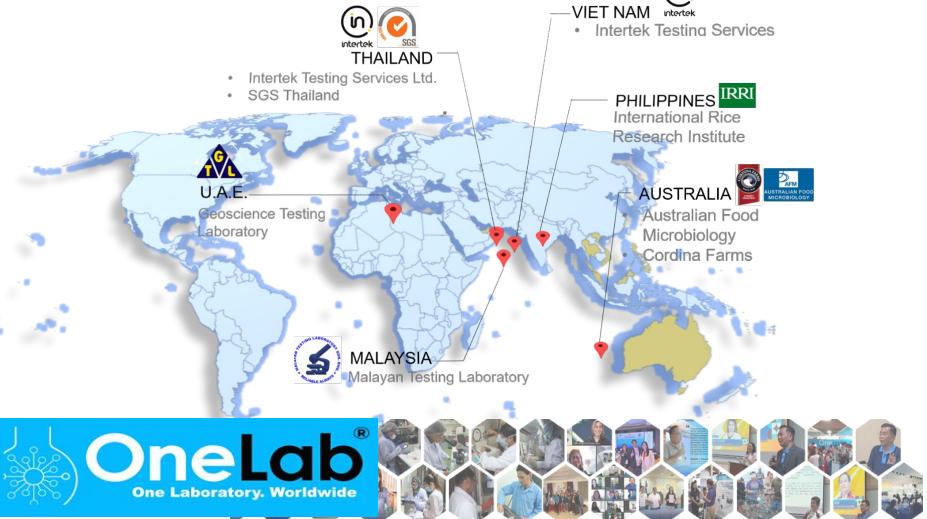
SGS intertek  
Total Quality. Assured.

AUSTRALIA

ASTS  
Cordina Farms  
AFM

UAE

GTL



In 2024, the program delivered 268,000+ tests on 189,000 samples for ~65,000 customers; rolled out 135 new services; added 9 members; set up 4 SUCs as sample receiving stations

On the other hand, in 2025, the program performed 139,000+ tests; launched 90 new services; inaugurated **LabMove** for faster sample transport; established 2 satellite labs; gained new international member



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## Metals and Engineering Innovation Centers (MEICs)



2024–2025 (1st Sem)

- Turned over 3 MEICs (Batch 1) to partner SUCs
- Inaugurated 8 MEICs (Batch 2), expanding regional innovation hubs
- Strengthened **industry linkages** through R&D projects, trainers' training, and local benchmarking

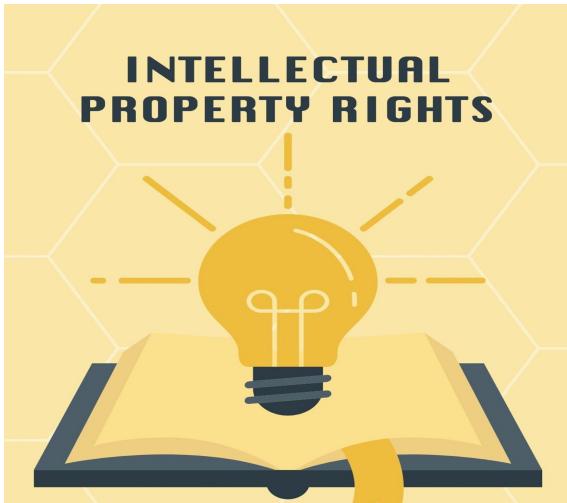
## Advanced Manufacturing Center (AMCen) / Technological Readiness and Innovation Through Advanced Manufacturing in the Philippines (TRIAMPH)



- Recognized as PH's 3rd Advanced Manufacturing Institute; earned ASTM safety certification; completed 6 R&D projects; launched 2 satellites; and introduced AM curriculum in schools.

## Support to Inventors

### Expanded Intellectual Property Rights Assistance Program (eIPRAP)



2024–2025 (1st Sem):

Filed **18** Patent Cooperation Treaty (PCT) applications and **59** National Phase Entries to sustain patent activity

### Grants and Assistance to Leverage Innovations for National Growth (GALING) Program



2024–2025 (1st Sem):

Supported **13** clients with **₱2.2M** to enhance technology readiness levels.

# Support to Inventors

## National Invention Contest and Exhibits (NICE)



### 2024 NICE & Presidential Awards

- Outstanding Invention (TUKLAS):** Continuous Screw-type Salt Washer
- Outstanding Utility Model (UNLAD):** Turbo Rice Steamer
- Outstanding Industrial Design (BANGHAY):** Plastic Segmented Fish
- Outstanding Creative Research – Gov't Funded (LIKHA):** Salt Harvesting Equipment
- Outstanding Student Creative Research (SIBOL – College):** Impulse Excitation Technique (IET) Pro
- SIBOL High School Awards:** Head Covering Emergency Alarm System, Life Saver, Monitoring Device

## Participation to International Exhibits and Contests



**2024–2025 (1st Sem):**

Showcased **70** local technologies abroad, won **39** awards, and built global partnerships.

# Support to Scholars

## Science, Technology, Engineering and Mathematics (STEM) Research Program



2024–2025 (1st Sem):

Filed **441** IPRs, with **224** granted

## Scholars Technopreneurship Training Program (STTP) under the S&T Scholarship Program



2024–2025 (1st Sem):

Trained **599** scholars across **6** regions in technopreneurship and innovation.

## Bamboo R&D Program

**Philippines breaks Guinness record in bamboo planting, drives climate resilience**



Guinness World Record adjudicator Sonia Ushiriguchi, virtually verified that the Guinness World Record for '**People Planting Bamboo**' was achieved by the Philippines during the conduct of the 2024 NSTW in Cagayan de Oro City last November 28.

## Human Security and Defense R&D Program



- Developed **cross-laminated bamboo** reinforced with Ultra-high Molecular Weight Polyethylene and silicon carbide, passing Level IIIA ballistic testing.
- Tested laminated bamboo-UHMWPE armor panels for vehicles, passing partial Level IIIA with no penetration.
- Identified Bandala, Kawayan Tinik, and pineapple leaf waste as raw materials for alpha-cellulose in propellant production.

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## Bamboo R&D Program

### Gubat Obra: Forest Based Creative S&T Program



- Launched the **SOLIDrum**, a giant bamboo tom drum shell as a sustainable local alternative to imports.
- Developed natural dye-based wood stains and high-value products from senile sugar palms, including innovative furniture prototypes.
- Produced **38 creative prototypes from Karogomoi (Pandanus simplex Merr.)**, featuring furniture and handcrafted light fixtures blending tradition and innovation.

### Bamboo and other NWFPs Research and Development Program



- Developed bamboo pyroligneous liquid as eco-friendly pesticide against crop pests
- Advanced bamboo-based products (hygiene, filters, wound care, cosmetics) and produced 500+ liters of pyroligneous liquid for pest control
- Secured *Silyang Pinoy* trademark & patent filing; donated units to DOST Day Care; won Silver Prize in Korea; initiated talks with DepEd for pilot testing
- Conducted demos in Luzon & Visayas; developed prototype sandwich panel from agri-forest wastes

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#OneDOST4U

## Flavors and Fragrances from the Forest Program



Registered **Bari Tea** and passed safety tests; promoted bamboo leaves as eco-feed to support farmers; and advanced agarwood R&D through global partnerships.

Signed 3 MOAs on barrel innovation, showcased eco-friendly scents, and developed insect-repellent incense from forest by-products.

## NICER: Accelerating Salt Research And Innovation Center (ASIN CENTER)



Set up the **ASIN R&D Center** with solar and cooked salt tech; improved salt quality, and studied the local salt industry; conducted benchmarking and training in India and Japan; **launched the ASIN Caravan**; deployed better drying tech, prepared 2 designs for production; and secured 1 copyright and trademark, with more IP filings underway.

# Textile Innovations

**PILLAR 2**

FOSTERING WEALTH CREATION

## FRONTIER:(Fostering the Revitalization of Nascent Textile Innovation Ecosystems in the Region)

*Natural Textile Fiber  
Innovation Hub (NTFIH)*



Established **4** NTFIHs,  
forged **3** new partnerships,  
and generated **15** jobs.

*Handloom Weaving*



Trained **28** women weavers,  
established **12** Handloom  
Weaving Hubs benefiting **640**  
families, and trained **146**  
more to strengthen the sector.

*Natural Dyes*



Established **2** NatDyes  
Hubs and trained **80**  
individuals; expanded  
partnerships for **3** more  
hubs in progress.

*Regional Yarn Production and  
Innovation Center (RYPIC)*



Partnered with LGUs and  
agencies to boost local  
textile production through  
**new fiber treatment and  
spinning equipment.**

### CREATTEEVs: Creativity and Equity through Accelerated Technology Engagements and Entrepreneurships for Vulnerable Sectors



5 handlooms turned over to BuCor—Correctional Institution for Women, Mandaluyong

110 individuals trained on **basic handloom weaving** (28 PDLs in Mandaluyong & members of 4 community weaving groups)

### Nonwoven Innovations Program: Diversification of Philippine Textiles through Nonwoven Innovations



500 meters of nonwoven fabric produced from pineapple, abaca, bamboo, and banana; sold over 1,000 pairs of footwear; introduced the country's first **Heat Flow and Acoustic Absorption Analyzers**; and developed 25 alternative leather accessories

### SEDA Pilipinas: Regional Silk Production Ecosystem through Innovation and Sustainability



- **2 Silk Innovation Centers** in operation (*Misamis Oriental* and *Kalinga*) maintained
- **25** active silk cocoon producers with a total of 15 ha. of mulberry plantation
- **70** people trained in silk cocoon production and processing

### SAFATOS: Shoes and Footwear Accessories R&D for the Footwear, Leather Goods, and Tannery Industries Development Act (RA 9290)



- Engaged **10** academe/industry partners
- Produced **50** footwear pairs from **banana, bamboo, abaca, pineapple**
- Introduced **PH's first in-shoe pressure dynamic tester**
- Scoped **10 manufacturers** (Marikina, Laguna, Cebu, Davao)
- Partnered with **Creative Definitions** to test/refine natural fiber-based leather

# Textile Innovations

PILLAR 2

FOSTERING WEALTH CREATION

## BARMM Textiles: Mapping, Scoping and Profiling of BARMM Textiles towards Developing Inclusive Innovation Ecosystem



15 weaving communities in BARMM were mapped, scoped, and profiled; 46 handwoven textiles and designs were documented; and 3 stakeholder engagements were organized.

## COMBATex: Camouflage, Optical, Mechanical, Ballistic, and Armored Textiles R&D Program



Mobilized the Philippine Textile Consortium and partners to develop and standardize PTF-based military uniform prototypes for the Philippine Army.

## Textile Innovations

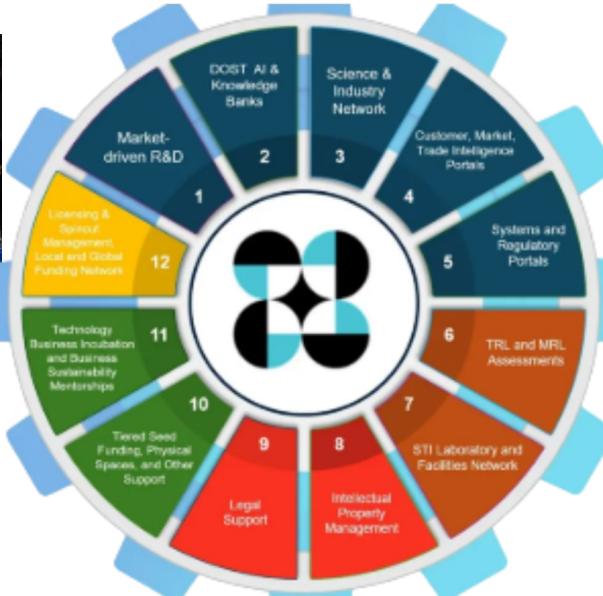


### Upcoming Initiatives:

- **FRONTIER:** Set up regional hubs to develop natural fibers and turn textile waste into eco-friendly products.
- **SusTELAbility FIBERCYCL:** Recycle PET bottles into locally made textile fibers to cut imports and waste.
- **Composite Textiles:** Create new materials for home and creative industries using innovative textile blends.
- **SMART-SILK:** Boost the Philippine silk industry through tech, research, and support for local farmers.

# Program PROPEL:

## Accelerating Innovations in the Philippines, Propelling Innovations from the Philippines



- Expanded platforms at the **grassroots level** to localize S&T solutions and innovations
- Addressed **daily community challenges** aligned with **sustainable development goals**
- Created a **dynamic platform** connecting S&T enterprises with peers, mentors, industry partners, and investors



Accelerating Innovations in the Philippines, Propelling Innovations from the Philippines.



# PILLAR 3: REINFORCING WEALTH PROTECTION



## Weather and Climate Forecasting and Warning Program

Establishment of New PAGASA Weather Stations



Establish permanent weather stations i.e., synoptic stations, for the provision of meteorological information

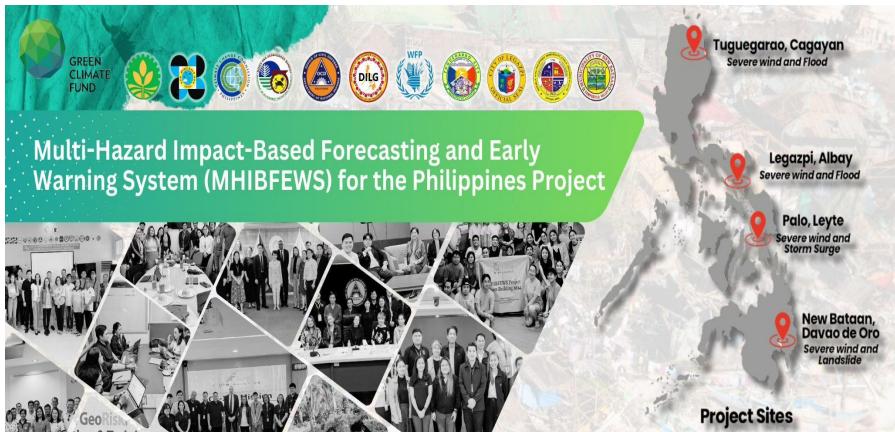
## Flood Forecasting and Warning Program

Development of Flood Forecasting and Early Warning System for Greater Metro Manila and Surrounding Provinces of Laguna Lake Complex for Disaster Mitigation



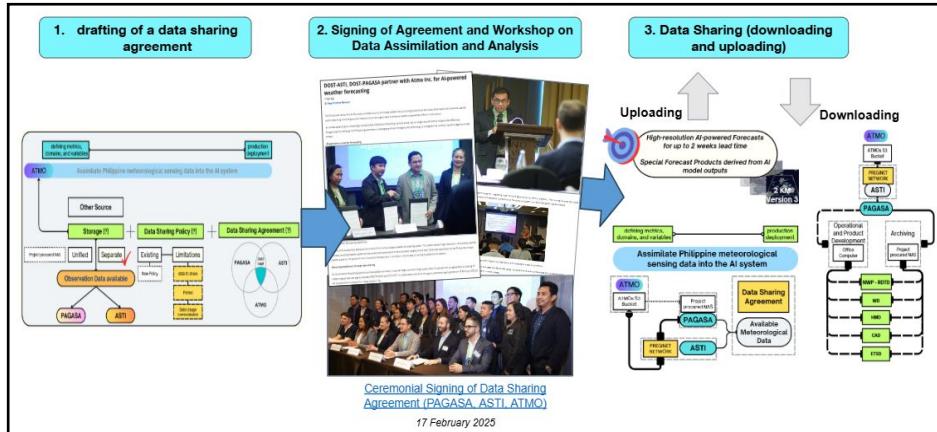
**Upcoming initiative:** Establishment of Integrated Hydrological Data Management System (HDMS) for Flood Forecasters and Flood Forecasting and Warning Systems

#### Multi-Hazard Impact-Based Forecasting and Early Warning System for the Philippines (MH-IBF-EWS Project)



- Developed historical database on tropical cyclone impacts
- Began development of nationwide severe wind risk information
- Developed national impact tables through consultation meetings
- Generated probabilistic hazard maps for severe wind
- Produced probabilistic forecasts for rainfall and wind
- Completed exposure database for project sites

#### AI-Powered Weather Forecasting for a Resilient Philippines (AI4RP)



- Procured AI-powered weather forecasting software subscription
- Deployed and operationalized system at [philippines.atmo.ai](http://philippines.atmo.ai)
- Explored ASTI computing resources for possible migration
- Formalized Data Sharing Agreement with PAGASA to strengthen data sharing and collaboration

### Doppler Weather Radar Restoration Project

PAGASA Iloilo Radar Station



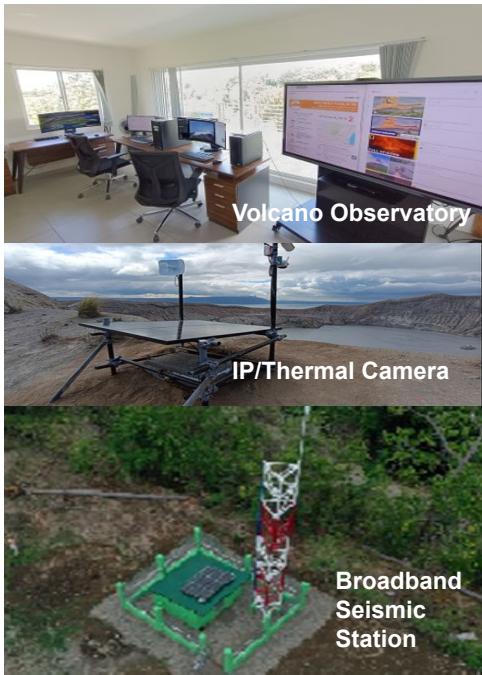
- Completed retrofitting of PAGASA Iloilo Radar Station building
- Radar equipment arrival at Iloilo port expected on **21 Aug 2025**
- Installation, testing, training, and commissioning targeted by **06 Oct 2025**

*Upcoming initiative: Establishment of New Doppler Radar*

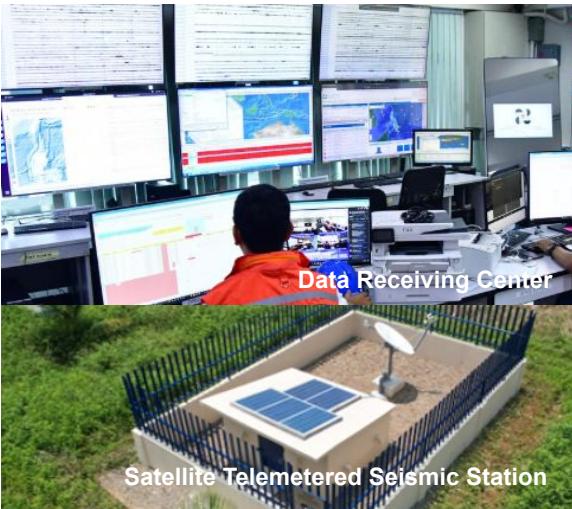
### Completion of National Meteorological and Climate Center (NMCC) Building



### National Volcano Monitoring and Warning Program

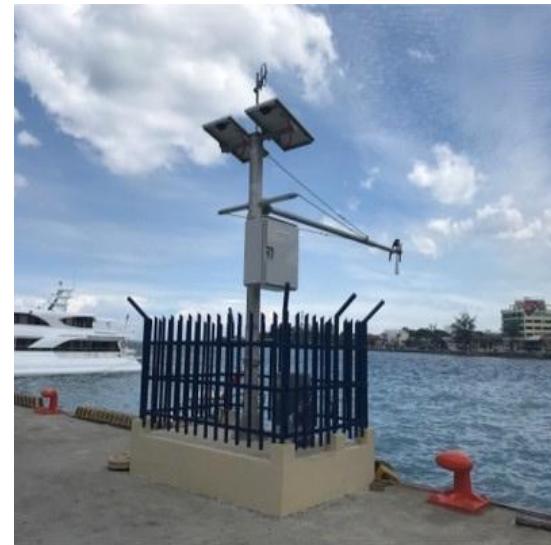


### National Earthquake Monitoring and Information Program



- Commissioned **9 new seismic stations**  
(Rizal, Biliran, Leyte, Samar, Cebu, Laguna, La Union, Camiguin de Babuyanes Island, Davao del Norte)
- Established **1 volcano broadband station**  
(Mt. Apo, Kidapawan City)

### National Tsunami Monitoring and Early Warning Program



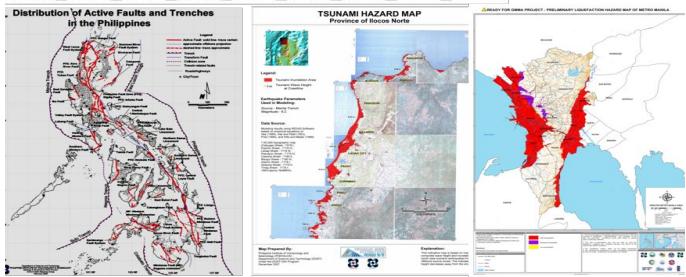
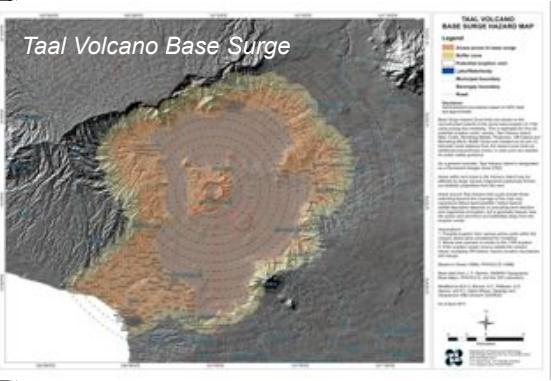
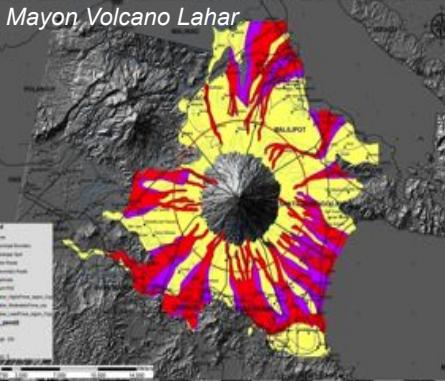
Tsunami Detection Station  
(Microwave Sea Level Gauge)

# Volcano, Earthquake and Tsunami Hazards Mapping, Risk Assessment and Research and Development Program

PILLAR 3

REINFORCING WEALTH PROTECTION

## Hazards Maps



Produced and published **235** provincial/municipal hazard maps (volcano, earthquake, tsunami)

Produced and published **230** additional hazard maps to strengthen nationwide geohazard assessment and risk reduction

## PHIVOLCS Desktop and Mobile Applications GeoRisk Philippines



Launched **HazardHunterPH Pro, GeoAnalyticsPH Pro, and GeoRiskPH Integrated Platform**

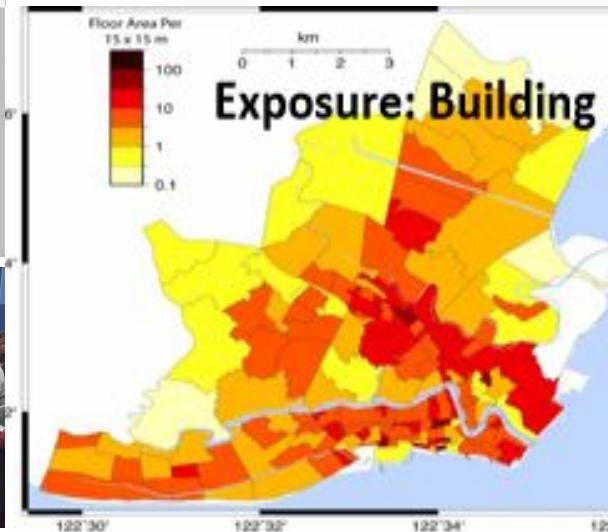
Held the 1st GeoRiskPH Convention and Training Workshop

# Volcano, Earthquake and Tsunami Disaster Preparedness and Risk Reduction Program

PILLAR 3

REINFORCING WEALTH PROTECTION

## Rapid Earthquake Damage Assessment System (REDAS)



- Conducted **26 REDAS software trainings** nationwide
- Conducted **8 trainings for DepEd teachers & DRR focal persons**



# PILLAR 4: INSTITUTIONALIZING SUSTAINABILITY



# Smart and Sustainable Communities Program (SSCP)



**CAGAYAN VALLEY REGION**  
 LGU BASCO, BATANES  
 LGU TUGUEGARAO CITY, CAGAYAN  
 LGU CAUAYAN CITY, ISABELA  
 LGU SANTIAGO CITY, ISABELA  
 PLDO. QUIRINO  
 LGU DILAO DEL NORTE, NUEVA VIZCAYA

**CORDILLERA ADMINISTRATIVE REGION**  
 LGU LAGUNA, ARAYAT  
 LGU STA. MARCELA, APAYAO  
 LGU ATOK, BENGUET  
 LGU TABUK, KALINGA  
 LGU ALFONSO LISTA, IUGAO  
 LGU BAUKO, MOUNTAIN PROVINCE

**NATIONAL CAPITAL REGION**

**CALABARZON REGION**  
 LGU CARMONA, CAVITE  
 LGU SANTA ROSA, LAGUNA

**WESTERN VISAYAS REGION**

**LGU KALIBO, AKLAN**  
 LGU SAN JOSE, ANTIQUE  
 LGU ROXAS CITY, CARIZ  
 LGU JORDAN, GUIMARAS  
 LGU ILOLO CITY, ILOLO  
 LGU BACOLOD CITY, NEGROS OCCIDENTAL

**CENTRAL MINDANAO REGION**

**LGU INABANGA, BOHOL**  
 LGU GINATIAN, CEBU  
 LGU BANTAYAN, CEBU  
 LGU SIQUIJOR, SIQUIJOR  
 LGU LARENA, SIQUIJOR  
 LGU DUMAGUETE CITY, NEGROS ORIENTAL

**NORTHERN MINDANAO REGION**

**LGU MAGSAYSAY, MISAMIS ORIENTAL**  
 LGU CAGAYAN DE ORO CITY, MISAMIS ORIENTAL  
 LGU ORO CITY, MISAMIS ORIENTAL  
 LGU LIGAN CITY, LIGAN DEL NORTE  
 LGU MALAYBALAY CITY, BUKIDNON  
 LGU MAMBAJO, CAMIGUIN

**DAVAO REGION**  
 LGU DAVAO CITY, DAVAO DEL SUR  
 LGU NABUNTURAN, DAVAO DE ORO  
 LGU DIGOS CITY, DAVAO DEL SUR

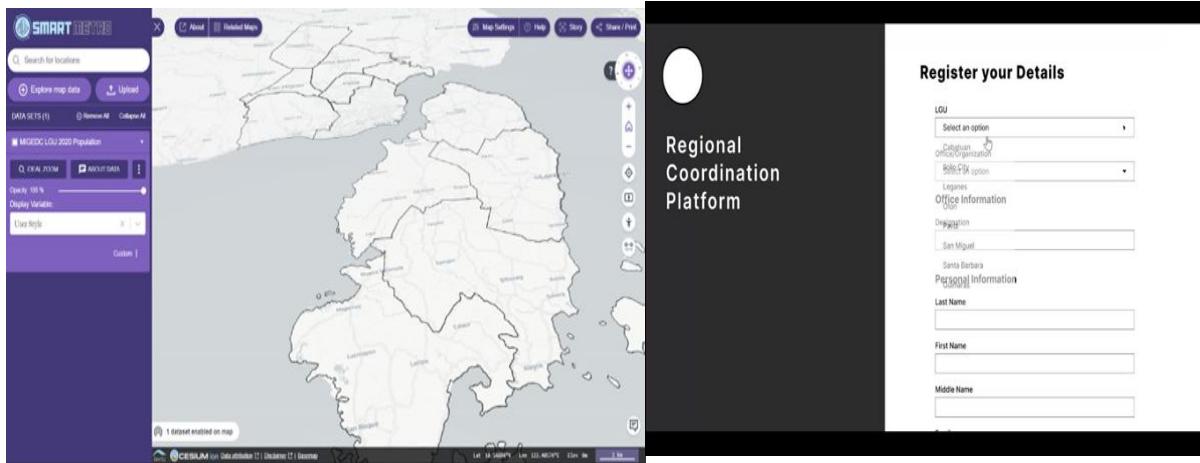


(Concept of Smart and Sustainable Community by Andrea Mei B. Resane, DOST-STII; Designed through Jimeng AI)

- Launched “Empowering Communities through SMART Roadmaps and Technologies”
- Held national workshops & virtual S&T Summit
- Expanded reach to 91 LGUs
- Forged partnerships with DOT and 5 science foundations
- Rolled out **Online SSCP Caravan**
- Launched **Philippine Smart & Sustainable Communities Awards**
- Collaborated with **World Bank** to strengthen framework
- Completed **26 new community roadmaps**

*Solutions and Opportunities for All*

## Modern Geospatial and Collaborative Solutions for the Development of Smart Regions (Smart METRO)



The image displays the Smart METRO platform interface. On the left, a map of the Philippines is shown with various regions highlighted in different shades of gray. The interface includes a search bar, a legend for 'DMA BEPS (1)', and a 'Display 100 %' button. On the right, there is a 'Regional Coordination Platform' section with a placeholder for a profile picture and a 'Register your Details' form. The registration form contains fields for 'LGU' (Local Government Unit) selection, 'Office Information' (with dropdowns for 'Office Type', 'Borough/Section', 'Legazpi', and 'Office Information'), and personal information fields for 'Last Name', 'First Name', and 'Middle Name'.

- Shortlisted existing technologies (e.g., **MINERVA**, **PATURO sensors**, **ALerTO-ADZU**, **Traffic AI-CarSU**) for integration into **Smart METRO** platform
- Continued development of **web-based regional coordination platform** for decision-making, public service delivery & info-sharing

## Technologies for Adoption



### Floating Solid Waste Collector System

The System includes **water hyacinth harvester**, **two (2) transfer barges**, and **onshore conveyor and advanced flooding and pollution management** in urban waterways.



### Microbial-based Bioremediation Technology

The GMAP aims to restore mined-out areas in places like Mogpog, Marinduque, Surigao del Norte, Zambales, and Cebu, enhancing carbon sequestration and reducing heavy metal contamination. This involves using microbes and plants to clean up and restore stressed environments.

*Upcoming initiative: Development of eco-friendly and affordable pest control and improvement of crop quality through SUGARCARE: Sustainable and Unified Gains through Agroecological Responses and Control using Resilient Eco-solutions (with four (4) component projects)*

## Circular Innovation, Resource Conservation and Utilization for Leveraging Advancement in Technology and Enterprise Towards Sustainability

- **Develop** evidence-based policies & frameworks for a sustainable circular economy (**PRIME-CE**)
- **Enhance** environmental resilience in Siargao via community-driven circular economy innovations (**GREENWAVE**)
- **Produce** biodegradable cups & takeaway boxes from natural fibers (**BIOCUPS & BOXES**)
- **Establish** a circular economy model to valorize crustacean wastes into high-value biomaterials (**CRUSTACIRC**)
- **Reduce** energy use in plastic-to-pyrolysis oil conversion via electron beam-assisted pyrolysis (**PYROBEAM**)
- **Develop** portable emergency water filtration system using upscaled wood wastes (**PAGPAWI**)



## Science, Technology, and Innovation for Circular Economy (STI4CE) initiative

- Launched **53 innovative research and development projects** tackling plastic waste and promoting sustainable industries. Key initiatives include:
  - Biodegradable Alternatives:** Developing polymers from plant-based oils and cassava starch to create compostable, eco-friendly solutions for plastic pollution.
  - Recycling Innovations:** Improving recycled plastics' mechanical properties with advanced radiation technologies, including the Post-radiation Reactive Extrusion of Plastic Waste (PREx Plastic) project.
  - Sustainable Construction Materials:** Producing eco-cement and lightweight composites from agro-industrial waste and Pulangui reservoir sediments to cut CO2 emissions in construction.
  - Citizen Science Initiatives:** Engaging the public through the PlastiZen project to collect marine litter data and support the National Plan of Action for Marine Litter.

# HANDA Pilipinas: Innovations in Disaster Risk Reduction and Management (DRRM) Exposition

PILLAR 3

REINFORCING WEALTH PROTECTION

## HANDA PILIPINAS PROGRAM IMPLEMENTATION MAP

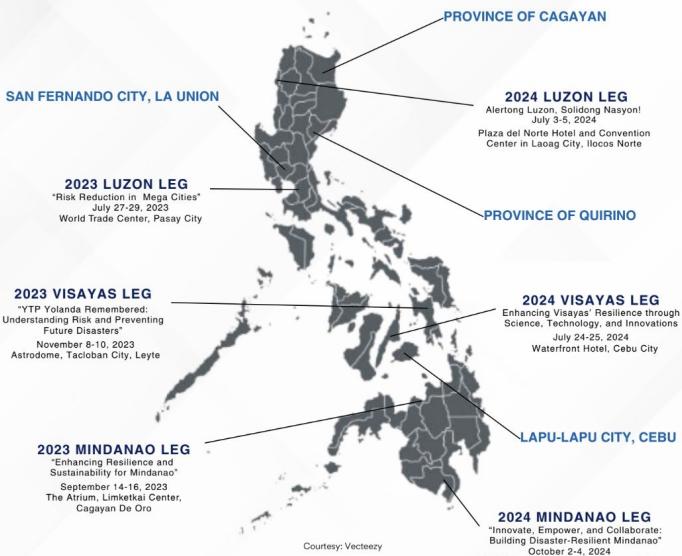
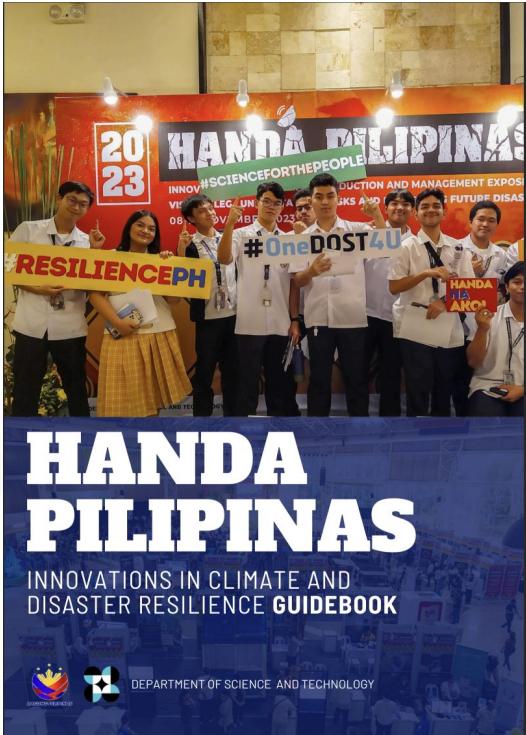


Figure 2: HANDA Pilipinas Program Implementation for 2023-2024



## 2024 HANDA PILIPINAS



"Alertong Luzon,  
Solidong Nasyon"

"Reinforced  
Visayan Resilience  
through STI"

"Enhancing  
Resilience and  
Sustainability for  
Mindanao"



## 2025 HANDA PILIPINAS

"Handa Pilipinas  
para sa Bagong  
Pilipinas"  
(Luzon)



# STRENGTHENING AND HARMONIZING DOST SYSTEM GOVERNANCE



*Solutions and Opportunities for All*



# Science Communication Program



- DOSTv
- EXPERTALK
- SIYENSIKAT
- BANTAY BULKAN
- RADYO SIYENSYA
- Science PiNAS



STARBOOKS - The First Digital Science Library

# S&T Promotion and Advocacy Activities



- S&T Posts
- RapiDOST
- DOST Digest e-newsletters
- Philippine Journal of Science (PJS) issues
- Press/photo releases
- Media engagements
- AV services
- Social media posts
- Other S&T information literacy and advocacy activities
- Operation of S&T Center for Information Services

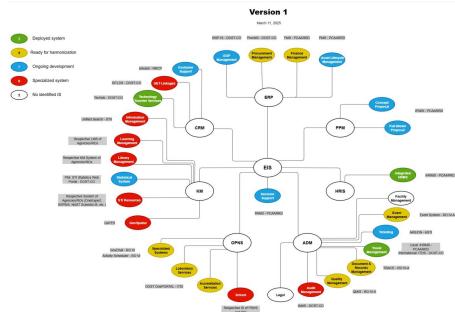


National Youth Science, Technology,  
and Innovation Festival  
(NYSTIF)

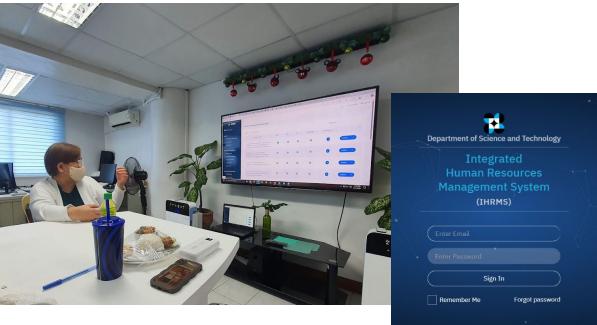


National Science, Technology, and  
Innovation Week  
(NSTW)

# DOST Digital Transformation (DOST DX)



## Development of the DOST DX Solutions Map



## Deployment of the iHRMS- part of the Phase 1 of IS Harmonization



## Conduct of the DOST-AAAEP Training capacitating DOST personnel on Enterprise Architecture (EA) and Business Processing Model (BPMN)



## Completed the DOST DX 101 Training Series



## Crafting of the 19 DOST ICT Policies



## Activation of Project LODIxR



# Geospatial Analytics and Technology Solutions (GATES) Program

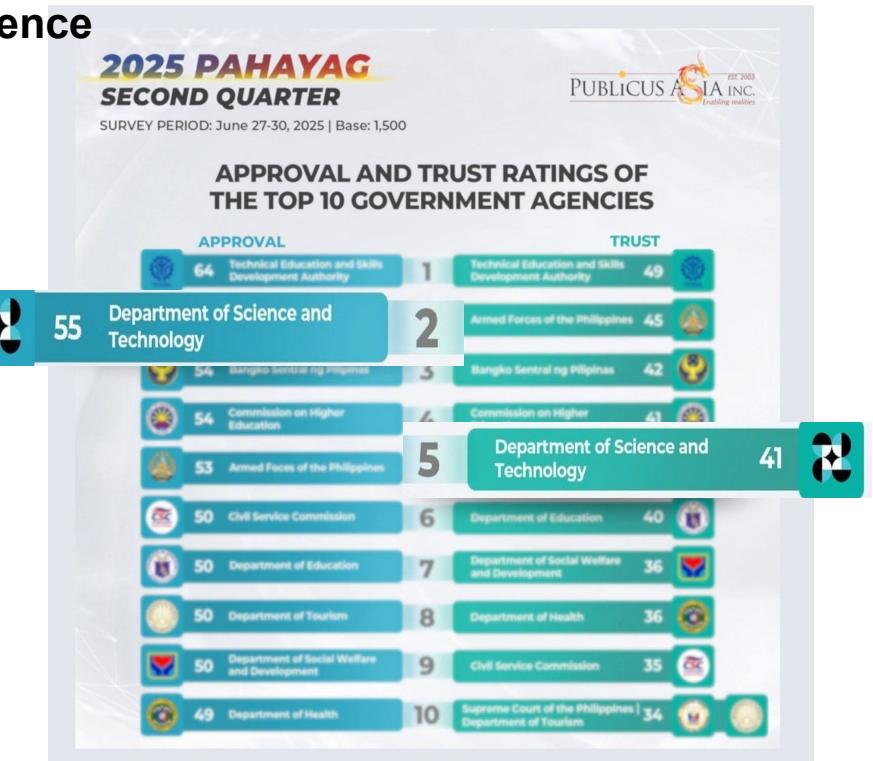


- Developed alpha version of Data Inventory and Management System for geospatial data
- Initiated agency engagements via round-table discussions for collaboration
- Created mock-up interactive platform mapping all DOST projects using GATES data
- Organized capacity-building activities and drafted related plans (Policy, Capacity Building, Knowledge Management)
- Supported GATES Program implementation in ASTI and PHIVOLCS

## Awards and Recognition for Scientific Excellence



- National Scientists through Presidential Proclamations
- Environmental Science Award



DOST approval and trust rating

# Enacted STI Bills

## PHIVOLCS Modernization Act



(RA 12180 was signed into law on April 24, 2025)

## Virology and Vaccine Institute of the Philippines (VIP) Act



(Both the House of Representatives and the Senate approved the bill creating the Virology Institute of the Philippines on June 9, 2025.)

## Philippine National Nuclear Energy Safety Act



(Both the Senate and the House of Representatives ratified the bill on June 13, 2025.)

## Expanded Philippine Science High School System Act

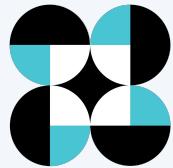


(Both the Senate and House of Representatives ratified the final version of the Expanded PSHS System Act on June 10, 2025.)

## National Measurement Infrastructure System Act



(RA 9236 or the "National Metrology Act of 2003," aims to standardize and modernize units and measurements in the Philippines.)



***PROPOSED FY 2026  
DEPARTMENT BUDGET***

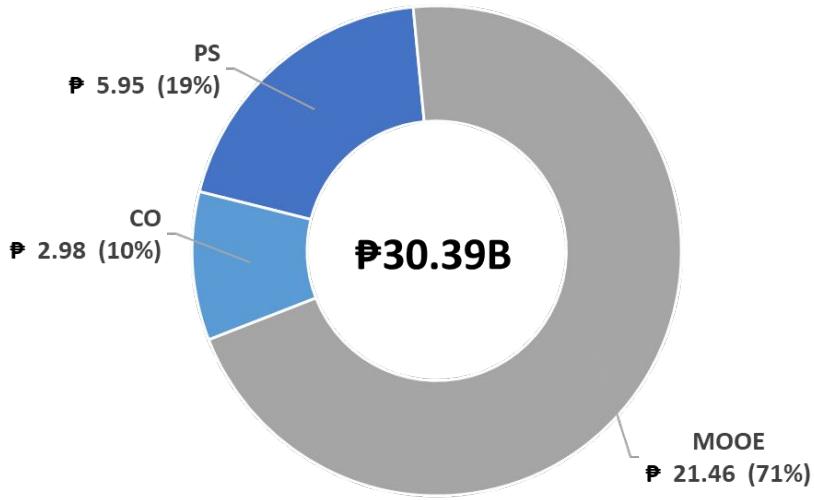
**₱ 30.39 B**

***(per NEP)***

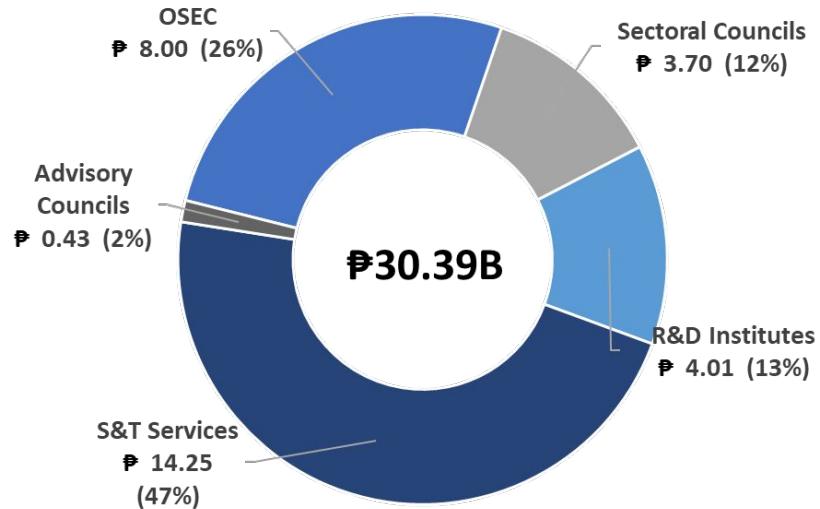
*with RLIP*

CONTINUE

## By Allotment Class

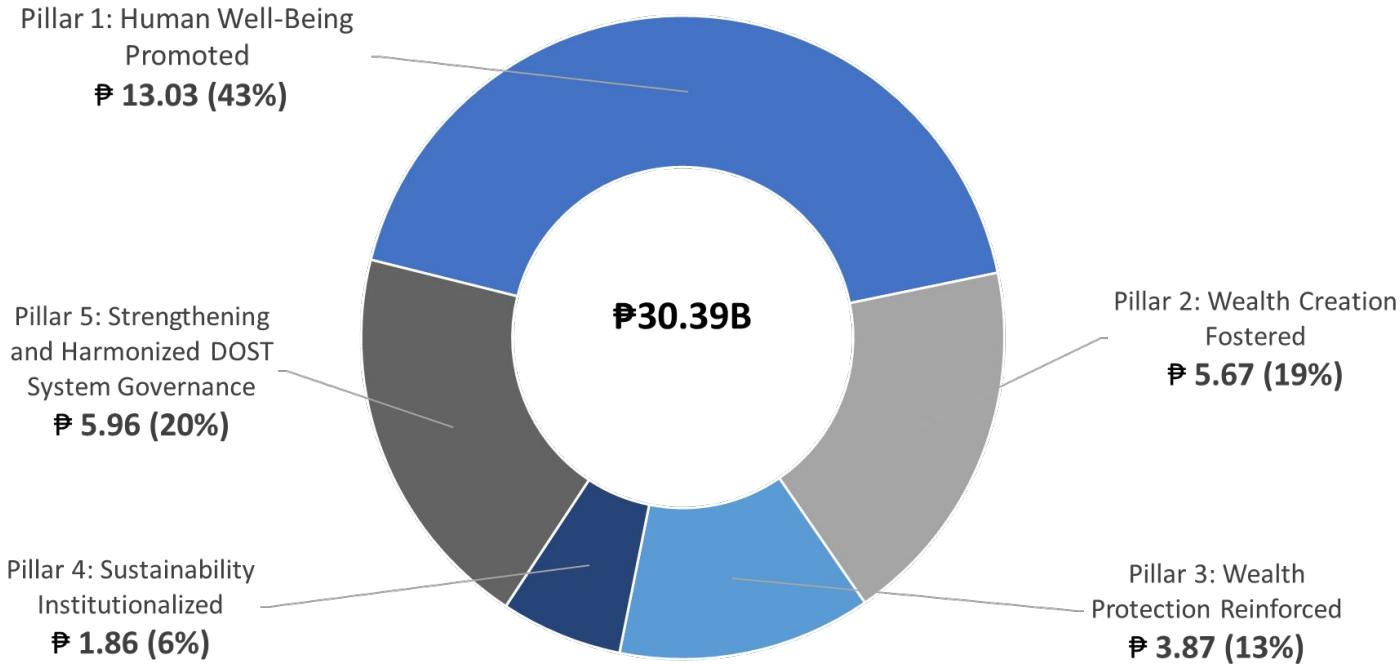


## By Attached Agency



*In Billion Pesos, including RLIP*

# Budget Distribution per DOST Pillars



*In Billion Pesos, including RLIP*

# Financial Accomplishments

Current Appropriations

**2024**

(December 31)

**₱27.8 Billion**

Allotment

**95% BUR as to Obligation**

**89% BUR as to Disbursement**

**2025**

**₱29 Billion**

Allotment

As of June 30

**49% BUR as to Obligation**

**82% BUR as to Disbursement**

As of July 31

**54% BUR as to Obligation**

**84% BUR as to Disbursement**

*\*Disbursement Rate = Disbursement over Obligation*



*“Sa Bagong Pilipinas,  
agham ay ramdam.”*

# THANK YOU.

*Solutions and Opportunities for All*



[www.dost.gov.ph](http://www.dost.gov.ph)



[osec@dost.gov.ph](mailto:osec@dost.gov.ph)



**DOST Philippines**

#OneDOST4U

