

DOST Halal S&T Program

Legend



Updated as of 21 September 2023

Research and Development

- Processing, packaging and labeling (food and non-food prototypes)
- Logistics and Marketing
- Establishment of Halal Assurance System (HAS)
- Halal Traceability Framework

Human Resource Development

- Training modules for Halal Assurance System for MSMEs, Halal Concepts and Principles, and Halal Management System
- Curriculum Modules for Halal Shariah, Halal Science, Halal Food Production, Safety, Processing and Hygiene, Halal Logistics and Marketing, and Halal Banking and Finance

Enhancement of Halal Verification Capabilities in Support to Halal Assurance Systems

- Establishment, completion and operationalization of Halal Verification (HVL)
- Promotion and marketing of HVL services
- Testing of raw materials, food products, non-food products (e.g., cosmetics, medicines, garments, etc.) for alcohol content, presence of porcine, pesticide and drug residues, heavy metals, nutritional content, etc.

Knowledge Transfer

- Small Enterprise Technology Upgrading Program (SETUP) – Innovation Fund (iFund) Support for Halal MSMEs
- Advocacy/Information drive campaign on the S&T Halal (Food and Non-Food)
- Establishment of Halal Knowledge Center

POSSIBLE SOLUTIONS

14M

- Blockchain-Based Novel System/Application for Transparent Traceability of Halal-and-Tayeb Cacao Products
- Development of Halal Compliant Dehydrated Food Products from Selected Food Materials (Fruits, Vegetables and Rootcrops)
- Establishment of Halal Assurance System for Selected Food Ingredients (Dried and Powdered Onion, Garlic, Black Pepper and Chili)

2021-2022

Research and Development

- HAS Manual for Halal-compliant Halal-compliant Dried and Powdered Onion, Garlic, Black Pepper, and Chili, Dried Mango, Coconut, Pineapple, Carrots, Malunggay, Cassava, Sweet Potato, and Ube
- Developed Halal Transparent Tracking System
- MOA with industry partner

50M

- Establishment of Halal Assurance Management System and Halal-compliant Standardized Process for Spa Skincare Products for the Halal Tourism Industry
- DOST ETCH: Enhanced Testing Capabilities of DOST Halal Verification Laboratories (HVLs) in Support to Philippine Tourism Industry
- Development and Deployment of Halal Tourism Training Module and Halal Assurance Systems (HAS) to Secure Halal Compliance of Tourism Establishments
- Halal Transparent Traceability System with Autonomous IoT Support for Halal and Tayeb Cacao Products (HATTS-v2)

2023-2024

Research and Development

- HAS Manual for Halal-compliant Spa Skincare
- Standardized process on essential oil extraction

HRD and Knowledge Transfer

- Developed Halal Tourism Training Modules in 2 languages (English and Filipino)
- Developed HAS manuals per region
- Training on the developed Halal tourism training modules: trainers, auditors, tourism establishments/enterprises
- Halal tourism establishments certified per region
- Adoption of Halal tourism training modules by Philippine Halal Board

Halal Laboratories

- 3 validated methods on Tayyib
- At least 4 laboratory personnel as Halal auditors
- Enhance skills and competence of HVL analysts on Halal and Tayyib tests
- Recognition of the DOST HVLs as reference laboratories in the Philippines

35M

- Halal Knowledge Center
- Halal S&T Summit

2025-2026

Research and Development

- Provision of transparent and ease of tracking Halal-and-Tayeb integrity of cacao
- HAS Manual of Dried Mango, Coconut, Pineapple, Carrots, Malunggay, Cassava, Sweet Potato, and Ube
- Copyright of Halal Transparent Tracking System
- 2 ISI/Scopus Indexed Journal Papers and IEC promotional of Halal Blockchain
- 2 graduate students for Halal blockchain

35M

- Halal Knowledge Center
- Halal S&T Summit

2027-2028

HRD and Knowledge Transfer

- Developed Central repository with online database of R&D output and Halal-related activities

VISION

Halal 2028: Science, Technology, and Innovation empowered Philippine Halal sector

Competitive Philippine Halal industries

MILESTONES

Develop and implement a DOST-wide R&D agenda and program in response to RA No. 10817 to enhance the competitiveness of the Halal export industry in the Philippines



Republic of the Philippines
DEPARTMENT OF SCIENCE AND TECHNOLOGY
PHILIPPINE COUNCIL FOR INDUSTRY, ENERGY AND EMERGING TECHNOLOGY RESEARCH AND DEVELOPMENT

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List of Projects – DOST Halal S&T Program

Component	Project Title	Budget Allocation ('000)							Status
		2022	2023	2024	2025	2026	2027	2028	
Research and Development	Development of Halal Compliant Dehydrated Food Products from Selected Food Materials (Fruits, Vegetables and Rootcrops)	-	-	-	-	-	-	-	Completed
	Establishment of Halal Assurance System for Selected Food Ingredients (Dried and Powdered Onion, Garlic, Black Pepper and Chili)	-	-	-	-	-	-	-	Completed
	Establishment of Halal Assurance Management System and Halal-compliant Standardized Process for Spa Skincare Products for the Halal Tourism Industry	10,285	2,820	-	-	-	-	-	Ongoing
	Halal Transparent Traceability System with Autonomous IoT Support for Halal and Tayeb Cacao Products (HATTS-v2)	-	6,586	4,728	-	-	-	-	New



List of Projects – DOST Halal S&T Program

Component	Project Title	Budget Allocation ('000)							Status
		2022	2023	2024	2025	2026	2027	2028	
Research and Development	Establishment of Halal Assurance System for Bakery Products	-	-	-	-	-	-	-	Completed
	Establishment of Halal Assurance System for Production, Method Development and Standardization of Cosmetics and Toiletries	-	-	-	-	-	-	-	Completed
	Technical Guidelines Development for Minimally Processed Halal Chicken and Chicken By-Products (Edible Giblets)	-	-	-	-	-	-	-	Completed
	Blockchain-Based Novel System/Application for Transparent Traceability of Halal-and-Tayeb Cacao Products		5,706	4,728					Completed



List of Projects – DOST Halal S&T Program

Component	Project Title	Budget Allocation ('000)							Status
		2022	2023	2024	2025	2026	2027	2028	
Human Resource Development	Competency Building on Halal-HACCP and its Prerequisite Programs for Personnel of Food Service and Manufacturing Industries on the Philippines: SEA Games 2019	-	-	-	-	-	-	-	Completed
	Setting-up of One-Stop Laboratory Services for Global Competitiveness: Establishment of Halal Laboratory in Region 11	-	-	-	-	-	-	-	Completed
	Setting-up of One-Stop Laboratory Services for Global Competitiveness: Establishment of Halal Laboratory in region 4A (CALABARZON)	-	-	-	-	-	-	-	Completed
	Curriculum Development and Offering on Halal Science and Scholarship for SUC Faculty on Halal Science	-	-	-	-	-	-	-	Completed
	Development and Deployment of Halal Tourism Training Module and Halal Assurance Systems (HAS) to Secure Halal Compliance of Tourism Establishments	10,547	10,125						Ongoing



List of Projects

Component	Project Title	Budget Allocation ('000)							Status
		2022	2023	2024	2025	2026	2027	2028	
Enhancement of Halal Verification Capabilities in Support to Halal Assurance Systems	Operationalization of Halal Verification Laboratories (HVLs) of DOST Regions CALABARZON, 11, 12, and ARMM in Support to Halal Assurance Systems	-	-	-	-	-	-	-	Completed
	DOST ETCH: Enhanced Testing Capabilities of DOST Halal Verification Laboratories (HVLs) in Support to Philippine Tourism Industry	8,297	7,989	-	-	-	-	-	Ongoing

Halal Program 2023

Target Projects: 2
Target Budget: Php 25M

New: 1
Budget: 10.4M
(HATTSv2)

On-going Projects: 3
(Halal REDI Program)

Completed Projects: 2
(Halal Blockchain, Dehydrated)



Roadmap Assessment

OVERALL ASSESSMENT

HIGHLIGHTS

- 18 projects implemented 2018 to 2023: 11 R&D, 5 HRD, 2 Laboratory Testing
 - Products: 7 HAS manuals, 3 training modules, 3 spa skincare products, 1 blockchain system for Halal cacao products
 - People Services: 55 certified DOST-based/affiliate Halal Lead Auditors, 31 trainers, 44 industry personnel on Halal-HACCP
 - Places: 4 Halal Verification Laboratories (porcine DNA detection, alcohol, FFA profiling), ITDI Halal Food R&D Facility, PWC Halal Research and Training Facility

Challenges

- Action of the Halal Board for resolution/policy on endorsed modules, personnel, and lab services
- Ongoing projects: timely submission of requests and reports for multi-agency projects
- Proposals not passing the evaluation criteria

Recommendations/Way Forward

- Lobby for Halal Board Policy for HVLs as preferred testing facility of products for Halal certification
- Partnership of HVLs with Halal certifying bodies for testing
- Support for transfer and adoption of technologies developed
- Deployment of developed modules in cooperation with the National Commission on Muslim Filipinos (NCMF)

