



THAILAND AND SEARCA

 $\underbrace{A} \underbrace{T} \underbrace{T} \underbrace{A} \underbrace{I} \underbrace{N} \underbrace{N}$ Accelerating Transformation Through Agricultural Innovation





SEARCA's headquarters was constructed with funding from the International Development Research Centre (IDRC) of Canada and the Government of the Philippines.

Established in 1966, the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) is one of the 26 specialist institutions of the Southeast Asian Ministers of Education Organization (SEAMEO), a treaty organization that promotes regional cooperation in education, science, and culture.

The SEAMEO member countries are Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Timor-Leste, and Vietnam. The associate member countries of SEAMEO are Canada, France, Germany, Morocco, the Netherlands, New Zealand, Spain, and the United Kingdom. Thailand is one of the founding member countries of SEAMEO, which was established in 1965.

SEARCA's objectives are to:

- 1. Provide high-quality graduate education and training in agriculture;
- 2. Promote, undertake, and coordinate research addressing the development needs and problems in agriculture of the region; and
- Disseminate the findings of agricultural research and experimentation.

SEAMEO SEARCA

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Our Vision

A leading enabler and champion of excellence in agriculture and rural development in Southeast Asia

Our Mission

To elevate the quality of life of agricultural families through sustainable and resilient livelihoods and access to modern networks and innovative markets





Our Strategic Objectives

- Access new and innovative financial services
- · Adopt new, sustainable, and resilient production technologies and systems
- · Integrate with modern postharvest and logistics system
- Gain access to and operate in modern networks and markets



supports the UN Sustainable Development Goals

















Our Strategic Intent

SEARCA, in the next five years, commits to BETTER, BIGGER, and SMARTER outcomes and impact on the agriculture industry and its stakeholders, most especially the larger proportion of resource-poor farmers, by delivering better services through more context-relevant and valuable services to even more beneficiaries in more effective and efficient ways.

Alongside other global, regional, and national organizations, SEARCA aligns its direction toward contributing to the achievement of the United Nations (UN) Sustainable Development Goals (SDGs) that address global challenges to achieve a better and more sustainable future for all. SEARCA commits to contribute and allocate resources for the achievement of five SDGs which directly align with its mandate and focus, with an emphasis on creating partnerships (SDG17). Moreover, SEARCA also touches three other SDGs as it tries to achieve the five.

EDUCATION AND COLLECTIVE LEARNING



SEARCA's core program on Education and Collective Learning (ECL) leads the development of a new breed of agriculture leaders and professionals through its scholarships and other graduate study programs. ECL also leads the technical and professional trainings, and coordinates roundtable discussions, conferences, fora, and all other SEARCA learning events.

■ GRADUATE SCHOLARSHIP AND INSTITUTIONAL DEVELOPMENT

▶ GRADUATE SCHOLARSHIP PROGRAM

One of SEARCA's main objectives is to produce high-quality human resources in agriculture for the SEAMEO region in order to strengthen their institutions that would propel regional development. One of the major undertakings under this program is the provision of scholarships that enable Southeast Asians working in agriculture and rural development to pursue their master's or PhD studies.

Full Master's and PhD Scholarships

So far, SEARCA has awarded 367 full graduate scholarships (171 MS, 193 PhD) to nationals of Thailand. These include grants for 40 Thais supported by Thailand's Bank of Agriculture and Agricultural Cooperatives (BAAC), which was implemented by SEARCA. Of this number, 345 (167 MS, 178 PhD) had completed their study programs.

Three universities in Thailand served as study posts of scholars under the recently completed International Development Research Centre (IDRC) of Canada Uplands Fellowship Project implemented by SEARCA. The scholars were nationals of Cambodia, Lao PDR, and Vietnam and they completed two-year master's programs in fields related to agriculture and food security in the uplands of Southeast Asia.

PhD Research Scholarship

SEARCA also awarded PhD research scholarships to seven Thais whose researches are relevant to the priority thrusts of SEARCA. Five of them have completed their PhD programs.

Graduate Alumni

As a testimony that the SEARCA graduate scholarship program is a key factor in human resource development in Thailand, a number of Thai SEARCA scholars who had completed their studies are holding or have held high positions of responsibilities in government and other sectors of the country. Effective March 2022, the Regional SEARCA Alumni Association (RSAA) Vice-President is Dr. Weerapon Thongma, President of Maejo University.

Outstanding SEARCA Scholarship Alumni (OSSA)

On the occasion of its 50th anniversary, SEARCA honored 11 Southeast Asians with the OSSA Award, among them two Thais. It was the first time that SEARCA conferred such accolade on its alumni who have championed ARD and distinguished themselves in creating positive impact through their work.

Dr. Klanarong Sriroth, Associate Professor in the Department of Biotechnology, Faculty of Agro-industry, Kasetsart University, was recognized for his research work on cassava that transformed Thailand's starch industry from nearly a nonexistent industry into the world's most prolific, changed the way sugar is priced, and radically improved the income of hundreds of thousands of rural farmers in Thailand.



On the other hand, Dr. Chya Suthiwanith established the Faculty of Natural Resources for the Prince of Songkla University (PSU) in 1975 and became the first dean of the faculty. During his retirement, Dr. Chya also introduced an innovative way of extracting latex from rubber trees and established his rubber plantation. Until now, his plantation is frequented by students, extension workers, and farmers from all over Thailand to learn, train, and experience what is now called his Rubber Plantation College. Furthermore, at the request of the late King Bhumibol Adulyadej, Dr. Chya organized villagers in the Southern provinces of Thailand to raise and breed goals to improve its meat and milk production.

UNIVERSITY CONSORTIUM

Kasetsart University (KU) is one of the founding members of the Southeast Asian University Consortium for Graduate Education in Agriculture and Natural Resources (UC) initiated by SEARCA in 1989. The other founding members are IPB University (formerly known as Institut Pertanian Bogor) and Universitas Gadjah Mada (UGM) in Indonesia, Universiti Putra Malaysia (UPM), and University of the Philippines Los Baños (UPLB).

KU hosted the 2016 UC Summer School with the theme "Climate Change and Food Security" followed by the 2017 UC Graduate Forum on "Combating Food and Energy Insecurity and

Climate Change with Sustainable and Inclusive Agricultural Technology and Innovation." KU led the Master of Science in Food Security and Climate Change (MS FSCC) project which is a joint degree developed under the European Commission's ERASMUS + Capacity Building for Higher Education funding from 2016-2019. The project partnered with 11 institutions from Southeast Asia and five partners from Europe, with non-university partners such as SEARCA, Agreenium, and Agrinatura. The joint degree aims to develop a critical mass of high-quality, next generation of interdisciplinary professionals able to address the imposing challenges posed by climate change and food security in their country and the region. The European Commission's Education, Audiovisual and Culture Executive Agency (EACEA) evaluation noted that the objectives of the project were fulfilled, the expected results were delivered and most of the results and outputs are of good quality.

Maejo University (MJU) became a UC affiliate member in 2021. And is represented by its President, Associate Professor Dr. Weerapon Thongma. MJU hosted the 8th UC Graduate Forum held on 18–19 May 2023 at the Furama Chiang Mai Hotel, themed "Future of Agriculture Sustainability: Organic Intelligent Agriculture." 54 research papers were presented during the plenary and parallel sessions that was attended by at least 70 researchers, experts, practitioners, policymakers and students from 6 countries of the UC members.

The 7th UC Summer School with the theme "Sustainability of Agricultural Systems in Difficult Environments," was held on 24 July to 4 August 2023 and organized by KU at its Chalermphrakiat Sakon Nakhon Province Campus. The event was co-organized with the TALENT Programme on Sustainable Land Management of the French Agricultural Research Centre for International Development (CIRAD). Twenty-eight delegates from the UC members were joined by 23 other participants from KU's partners in the region for the event.

LevelUPHEI AFAR project funded by the Commission on Higher Education (CHED), Philippines

Philippines HEIs participated in the CHED Mobility Programs to the UC

Under the SEARCA-led project on Leveling-Up Philippine Higher Education Institutions in Agriculture, Fisheries, and Natural Resources (LevelUPHEI AFAR), Kasetsart University hosted junior faculty members of the State Universities and Colleges - Association of Colleges of Agriculture in the Philippines (SUC-ACAP) for the following learning events:

- Practical bioinformatics skills training for plant and animal whole genome sequencing data in 2023
- University Consortium Summer School Sustainability of Agricultural Systems in Difficult **Environments in 2023**

Besides the learning events, select faculty members from SUC-ACAP stayed for one month to one semester at Kasetsart University for their research activities.

So far, at least 109 Thais have participated in UC activities:

- 47 graduate exchange students
- 21 thesis grantees
- 31 exchange faculties

- 2 research fellows
- 6 professorial chair holders
- · 1 seed fund for collaborative research grantee

► REGIONAL PROFESSORIAL CHAIR GRANTS

Since 1974, SEARCA provides professorial chair grants to highly competent faculty and research staff of universities in Southeast Asia. Initially, the grant was offered only to faculty and research staff of UPLB but it was later on expanded to include other universities in the region starting 2012. Since academic year 2011-2012, the SEARCA Regional Professorial Chair Grant has recognized the contribution of institutions and individuals in the fields of agriculture and related sciences, thereby contributing to ARD in Southeast Asia through instruction, research,

innovation, and extension work. Four Thais have been awarded the Professorial Chair:

- Dr. Nakorn Tippayawong of Chiang Mai University in the field of Agricultural Engineering
- Dr. Anchasa Pramuanjaroenkij of Kasetsart University in the field of Agriculture and Food Engineering
- Assoc. Prof. Dr. Sirikachorn Tangkawattana of Khon Kaen University in the field of Pathology/Zoonotic Diseases
- Asst. Prof. Dr. Suporn Thongyuan of Kasetsart University in the field of Veterinary Public Health



Dr. Nakorn Tippayawong

■ TRAINING FOR DEVELOPMENT

Short-term training is SEARCA's fast lane to building the capacities in the agriculture and rural development sector of SEAMEO member countries. Training activities are geared toward developing the technical and managerial competencies of university faculty members, researchers, agricultural and environmental leaders, and development practitioners in Southeast Asia.

Since SEARCA began its short-term training program in 1970, 1,274 Thais had participated in 248 international, regional, and in-country SEARCA training courses, faculty seminars, and learning forums including:

- Workshop on Establishing Climate-Smart Villages (CSVs) in the ASEAN Region to Improve Food Security and Resiliency in Local Communities
- Program Development Workshop on Sustainable Water Resources Management for Food Security in Southeast Asia
- Regional Event on Understanding the Fundamentals of Halal towards Food Security in the ASEAN Region
- International Conference on Climate Change Impacts and Adaptation for Food and Environmental Security
- International Training Course of Sustainable Agriculture (Ecofarming) and On-farm Experimentation
- Second International Training on Responding to Changing Climate: Knowledge-based Strategies in Managing Risks in Agriculture an Environment

- Training on Climate Change Adaptation for Six ASEAN Countries
- Training Course on Edible Mushroom Production for Asian Farmers and Entrepreneurs
- Regional Training Program Development Strategies and Planning for Farmers' Communities
- Regional In-Service Training Seminar for Teaching Personnel in Higher Education in Agriculture
- · Regional Training Program on On-farm Trials for Technology Verification
- · Regional Training Course on Data Management for Rural Development
- Regional Training Course on Strategies for Rural Development
- Research Management **Enhancement Course**
- Course Training Commercialization of Research Results
- Regional Training Course on Sustainable Agriculture for the Uplands
- Regional Training Course on Environmental Economics
- Study Tour-Writeshop on Climate Change Adaptation and Mitigation in Indonesia
- Writing to Share Knowledge Effectively
- K-Sharing for your Work: Techniques and Tools (K-Sharing Workshop)
- · Forum-workshop on Economic Instruments Applied in Environmental and Natural Resource Management in Southeast Asia
- Agricultural Biotechnology Training Workshop in Partnership with Southeast Asian Countries
- Risk-based Food Control Programs in Southeast Asia: A Regional Seminar-Workshop
- · Forum-workshop on Economic Instruments Applied in Environmental and Natural Resource Management in Southeast Asia
- Strengthening Project Development and Management in Southeast Asia
- · Workshop on Vulnerability, Impact and Adaptation Assessment for Climate Change: Approaches, Methods and Tools
- · Training Workshop for AFCC Sectoral Working Groups: Integrating Climate Change Adaptation into Development Plans and Investments
- First Agricultural Seminar on Development Support Communication Based on International Experience
- Refresher Course on Community Forestry in Asia
- · Participatory R&D Methods for Upland Agroforestry Systems and Watershed Resource Management

- National Trainers' Seminar-Workshop on Research Management
- National Follow-up Seminar-Workshop on Agribusiness Management Teaching and Case Writing in Thailand

Thirty of these learning events were conducted in Thailand. Some of the most recent learning events are as follows:

- In-Country Training Course on Strategies for Rural Development, January 1995
- In-Country Training Course on Data Management for Rural Development, February 1996
- In-Country Training Courses on Advanced Higher Education Administrators Development (AHEAD), MJU, Chiang Mai, Thailand, October 2003 and December 2002
- Rationalizing and Harmonizing Plant Biotechnology Regulations in Southeast Asia: A Learning Forum, March 2008
- Second International Training on Responding to Changing Climate: Knowledge-based Strategies in Managing Risks in Agriculture an Environment, November 2009
- Environmental Leadership in Climate Change Adaptation for Southeast Asia, February 2012
- Fourth Executive Forum on Leadership Excellence in Academe Program for Southeast Asia, January 2013
- Overseas Comparative Study Mission toward Inclusive, Sustainable and Competitive Livestock and Dairy Development, 2019

RESEARCH AND THOUGHT LEADERSHIP



One of SEARCA's main objectives is to conduct and coordinate appropriate and relevant research that promotes accelerating transformation through agricultural innovation (ATTAIN). Central to the Center's resolve to be strategically visible and more relevant for all stakeholders and strategic agricultural and rural ecologies, SEARCA's core program on Research and Thought Leadership undertakes policy analyses, research for development, and facilitate knowledge platforms.

▶ PAST RESEARCH PROJECTS

A Series Activities in the Framework of the UN Decade of Family Farming

SEARCA documented and systematically analyzed policies, strategies, initiatives, and programs successfully supporting family farming in selected Southeast Asian countries under Activity 2 of this Food and Agriculture Organization of the United Nations (FAO)-funded project. A case study on Thailand's Young Smart Farmer (YSF) Program was one of the six country-level case studies conducted. To support the documentation of some case studies and incorporate the viewpoint from Farmers Organizations, SEARCA collaborated with the Asian Partnership for the Development of Human Resources in Rural Areas (AsiaDHRRA).

Implications of ASEAN Economic Community (AEC) and Trade and Investments on **Regional Food Security**

SEARCA partnered with the Universitas Gadjah Mada (UGM) of Indonesia to implement this project which was identified by the SEARCA-initiated Southeast Asian University Consortium for Graduate Education in Agriculture and Natural Resources (UC) as one of the six priority research and development areas for collaborative undertaking under SEARCA's Umbrella Program on Food and Nutrition Security for Southeast Asia (FANSSEA). The project analyzed the potential impacts of AEC on existing trade agreements, flow of investments, and related

commitments among ASEAN member countries, including Thailand, and across existing ASEAN Free Trade Agreements (FTAs), and its implications on food security in the region.

Postharvest System Improvement – Best Practices in Fresh and Dried Chili in Southeast Asia: Quality and Safety Aspect, Kasetsart University

From July 2015 to February 2016, the project was conducted with Kasetsart University (KU) as lead in collaboration with the members of the UC, specifically University of the Philippines Los Baños (UPLB), Universitas Gadjah Mada (UGM), IPB, and Universiti Putra Malaysia (UPM) with country focus on Indonesia, Malaysia, the Philippines, and Thailand. The outputs of the study include:

- Supply chain of fresh chili varies in each country and comprise of pool traders, distributors, wholesalers, retail traders and household;
- Middle-large scale chili farms showed a good adherence to good agricultural practices (GAP) while small scale chili condiment producer revealed noncompliance with all aspects of good manufacturing practice (GMP); and
- GAP guidelines for both fresh and processed chili production need to be disseminated more extensively to small farms and industries in Southeast Asia.

Enhancing Human Resource Development in Agriculture: Imperatives for Regional Food and Nutrition Security

Led by UPLB, the study aimed to take stock of the human resource requirements toward ensuring food and nutrition security in the region, particularly for Indonesia, the Philippines, and Thailand. Specifically, it envisioned to assess the demand and supply potentials of human resources in the agriculture, fishery, forestry, and natural resources (AFNR) arena with an eye to charting the future direction of educational assistance programs and initiatives to promote food and nutrition security.

ASEAN Working Group on Social Forestry Strategic Response Fund (ASRF) under ASFCC Phases 2 & 3

Thailand was one of the countries covered by the ASEAN Working Group on Social Forestry Strategic Response Fund (ASRF), which SEARCA implemented as the supporting partner of the ASEAN-Swiss Partnership on Social Forestry and Climate Change (ASFCC). The ASRF is a flexible funding mechanism that aimed to enable the ASEAN Member States Focal Points to quickly respond to emerging issues and challenges and articulate policy recommendations and directions on social forestry as it relates to climate change, food security, and poverty alleviation.

Under the two phases of ASRF, grants were awarded to three projects in Thailand from 2014 to 2020:

- Enhancing Agroforestry Implementation through Study Tour on Agroforestry-based Livelihood
- Assessing Forest Biodiversity and Utilization of Non-Timber Forest Products in Community Forest for Rural Livelihood and Conservation in Thailand
- Assessing the Potential of Non-Timber Forest Products (NTFP) for Value Chain and Community Forestry Enterprises Development in Northern Thailand

Competency Certification for Agricultural Workers in Southeast Asia

SEARCA had been enjoined by the Southeast Asian Ministers of Education Organization (SEAMEO) in 2017 to conduct a study on competency standards for agricultural workers in Southeast Asia as a step forward in mapping national competency standards among the Southeast Asian countries. SEAMEO promotes technical and vocational education and training (TVET) as one of its seven education priorities. Hence, the collaborative study has been instrumental to the formulation of regional and national qualification reference frameworks and assurance framework, which was recognized to be essential in the harmonization and internationalization of TVET in Southeast Asia.

The results of the project were presented and validated in a regional workshop convened in May 2018 in the Philippines and jointly hosted by SEARCA and the Philippine Technical Education and Skills Development Authority (TESDA). It was participated in by representatives of TVET institutions from Brunei Darussalam, Indonesia, Lao PDR, Malaysia, Philippines, Thailand, Timor-Leste, and Vietnam; SEAMEO Secretariat; SEAMEO Regional Center for Vocational and Technical Education and Training (VOCTECH); SEARCA; the International Labour Organization (ILO); and private sector organizations involved in skills development of agricultural workers. It crafted a four-point recommendation that was subsequently presented and elevated for consideration in the 4th HOM on SEA-TVET held in September 2018.

The four-point recommendation focused on the following:

- Encourage TVET institutions to increasingly assume proactive and transforming roles in assessing, validating, and certifying skills and experience gained through non-formal and informal modes within a lifelong learning framework;
- · Strengthen and expand competency certification systems to cover recognition of nonformal and informal learning:
- Encourage TVET institutions to pursue partnerships and alliances with a broader range of stakeholders: and
- Promote support from regional TVET networks and international cooperation.

Review and Assessment of the Agricultural Innovation Systems (AIS) in ASEAN

The Organisation for Economic Co-Operation and Development (OECD) collaborated with SEARCA for the conduct of this scoping study whose results were the basis for the policy dialogue between the OECD and ASEAN countries, including Thailand, to secure food security in a long-term perspective.

Implemented from July 2015 to June 2016, the study aimed to identify the policy issues to improve agricultural productivity growth and sustainability in ASEAN region. Specifically, it aimed to provide an overview of agricultural innovation system in ASEAN countries, highlighting the need to evolve agricultural innovation system to generate innovative solutions for long-term food security concerns.

Food Reserves: A Comparative Study on Food Reserve Management and Policies in Southeast Asia

Thailand was among the countries covered by this project, which was a collaboration between SEARCA and the members of the UC. The project was under the auspices of SEARCA's Umbrella Program on Food and Nutrition Security for Southeast Asia 2014-2019.

The project aimed to:

- Define and understand the importance of keeping food stocks and reserves, and the rationale behind countries' decision to stockpile.
- Identify commodities that countries stockpile and the modalities and mechanisms of food stockpiling that have been adopted, including physical, virtual, trade, national, and regional mechanisms.
- Examine the implications of a changing regional trade regime on a country's foodstocks, as well as the impact of individual countries' food reserves on a regional stockpiling mechanism such as the ASEAN Plus Three Emergency Rice Reserve (APTERR).
- Explore the feasibility of establishing other types of regional stockpiles beyond reserves.

In addition to the survey in the 11 Southeast Asian countries, SEARCA organized a workshop involving all countries to determine the role of food reserve management and policies in the region and identify implications of a changing regional trade regime, like the ASEAN Economic Community 2015 (AEC 2015), on a country's food stocks. Countries stockpile food, particularly rice, in different modalities and adopt a mix of trade instruments. Thus, SEARCA chose rice as a starting point to study food reserve management processes and policies in Southeast Asia.

Umbrella Program on Climate Change Adaptation and Mitigation in Southeast Asia

From 2015 to 2020, this program was jointly implemented by SEARCA and the UC with the CGIAR Research Program on Climate Change, Agriculture and Food Security–Southeast Asia (CCAFS SEA) and the International Center for Tropical Agriculture (CIAT). It covered Thailand and the 10 other Southeast Asian countries.

Umbrella Program on Food and Nutrition Security for Southeast Asia

The Umbrella Program on Food and Nutrition Security for Southeast Asia was envisaged to serve as a platform for collaborative research on food security among the UC members and partner universities/institutions from the SEAMEO member countries. It aimed to align the program of work on food security of SEARCA and the UC to the development needs in the region and to support ongoing ASEAN-level programs on improving food security. The priority areas for collaboration were addressed through three integrated components: research and development, capacity building through graduate education and training, and knowledge management.

Other Past Research Projects

Other past SEARCA research initiatives in Thailand were mostly focused on strengthening the agriculture and rural sector of the country through studies on rural community development, post production systems management, agri-food systems, food policies, and agribusiness development. These projects include:

- Agro-industrial Development Planning: A Sub-regional Building Capacity Initiative Survey of Small and Medium Enterprises
- Social Laboratory for Rural and Agricultural Development
- Planning Methodology for Farmers' Community Development
- Post Production Systems Management
- Policy Issues and Investment Options to Avert Hunger and Food Insecurity in Asia
- · Regoverning Markets: Securing Small Producers' Participation in Restructured National and Regional Agri-food System
- Expansion of Subregional Cooperation in Agriculture in the Greater Mekong Subregion
- Policy Responses to Food Price Crisis and Their Implications: The Case of Greater Mekong **Subregion Countries**
- Regional Testing of Selected Crops as Potential Protein Source
- Studies of Fermented Foods of Southeast Asia
- · Cassava Outreach Program for Asia
- · Commodity Systems Research in Corn
- · Downy Mildew of Corn

SEARCA also conducted projects on information management to enhance the exchange and dissemination of agricultural information among countries in the region. Thailand served as one of the country hubs of agricultural information in the following information banks and networks:

- Agricultural Information Bank for Asia
- Data Management for Rural Development and Food Security Project
- ASEAN Integrated Pest Management (IPM) Knowledge Network

Thailand also participated in SEARCA projects focused on developing human resources in the region, including the following:

- High-Level Agricultural Manpower Requirement of Selected Countries in Asia
- · Research Management in Asia
- Management of Research and Extension Systems Projects
- Study on Higher Agricultural Education and Rural Development in Developing Countries in Asia and the Pacific Region

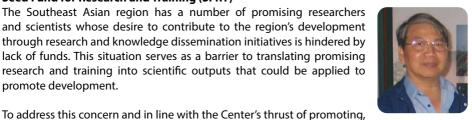
Other SEARCA projects implemented in Thailand were in the area of natural resource management, as follows:

- · Adapting and Transferring Lessons Learned from Manupali Watershed to Other Critical Watersheds in Southeast Asia
- · Environmental Baseline Study: Nutrients Migration to South China Sea: A Component of the Livestock Waste Management in East Asia Project of the World Bank and UN/FAO Livestock, Environment, and Development
- Small Grants Programme for Operations to Promote Tropical Forests in Asia

RESEARCH AND COLLABORATIVE GRANTS

Seed Fund for Research and Training (SFRT)

The Southeast Asian region has a number of promising researchers and scientists whose desire to contribute to the region's development through research and knowledge dissemination initiatives is hindered by lack of funds. This situation serves as a barrier to translating promising research and training into scientific outputs that could be applied to promote development.



Dr. Narong Sompong

undertaking and coordinating research programs relevant to the agriculture and rural development needs of the region, SEARCA will make available a pool of funds to be known as the SEARCA Seed Fund for Research and Training (SFRT).

The SFRT is envisaged to provide chosen research and training project proposals with limited start-up funds intended to enhance chances of securing long-term support from donor agencies. A grant of up to USD 15,000 shall be awarded as seed fund for research/training.

Dr. Narong Sompong of Kasertsart University, in partnership with Dr. Alexander G. Flor of University of the Philippines Open University, has been the only Thai SFRT grantee to date.

Travel Grants Program

To reinforce the Center's efforts and resources in accelerating transformation through agricultural innovation (ATTAIN) and become a leading enabler and champion of excellence in agricultural and rural development, SEARCA provides travel grants of up to a maximum of USD 1,200 to each qualified agriculture and agriculture-related professional, social scientist, or graduate student in Southeast Asia.

IFS-SEARCA Collaborative Research Grants

In 2016, the International Foundation for Science (IFS) and the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) implemented a grants scheme for collaborative research called the IFS-SEARCA Collaborative Research Grants Pilot in Southeast Asia. It was open to the nine Southeast Asian countries of Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Thailand, Timor-Leste, and Vietnam, and focused on climate change adaptation and mitigation.

As a follow-on collaboration between IFS and SEARCA, in December 2020, the Mentorship Program for Advanced Grants was launched with a Call for Research on Accelerating Transformation through Agricultural Innovation (ATTAIN). Promising scientists will benefit from translating their research and scientific outputs into knowledge that can be applied to promote development, while enhancing their capacities to develop research proposals and conduct research, and also expanding their reach in terms of contributing to the body of knowledge in their research areas. The purpose of the Mentorship Program is to nurture relationships between established scientists and early career researchers (the IFS-SEARCA

grantees) that are intended to help the latter to strengthen their research processes, ensure that their projects are of high quality, and produce useful results.

In partnership with SEARCA, IFS supports Southeast Asians who are enrolled in a PhD degree program or have recently completed a master's or PhD degree within the five years from the time of the call, and with limited research start-up funds. This call, however, gives priority in terms of number of slots to its scholarship alumni; faculty and staff of partner universities and universities under its institutional development assistance program; and other regular employees of development organizations, academic institutions and government agencies of Southeast Asian countries, such as Cambodia, Lao PDR, Myanmar, Philippines, Timor-Leste, and Vietnam.

The implementation of the new Advanced Grant scheme continued. Ten (10) successful applicants received an IFS-SEARCA Advanced Grant to conduct their research within one to three years.

▶ POLICY ROUNDTABLES AND CONFERENCES

Thai's also participated in various policy roundtables, conferences, and fora with focus on providing evidence-based policy lessons/implications resulting from science-based studies. Likewise, these provide venue for in-depth discussion among stakeholders to address the issues concerning agricultural and rural development in the region.

- Regional Training Workshop on Halal Slaughtering and Certification (23-25 August 2022, Putrajaya, Malaysia)
- First International Conference on School-plus-Home Gardens cum Biodiversity Enhancement Enterprise (SHGBEE1) (8-12 November 2022, Coron, Palawan, Philippines)
- Regional Policy Forum From Farms to Schools: Toward Sustainable and Inclusive School-Based Food and Nutrition Programs in SEA (24-25 April 2023, Alabang, Muntinlupa City and via Zoom)
- Regional Workshop cum Roundtable Discussion on ASEAN Economic Integration (28-29 Nov 2019, Bangkok, Thailand)
- ASEAN Multisectoral Workshop on Mainstreaming Biodiversity in Food and Agriculture (4-6 Dec 2018, Bangkok, Thailand)
- Regional Workshop on Competency Certification for Agricultural Workers in Southeast Asia (9-10 May 2018, SEARCA, Philippines)
- International Conference on School Gardens: Leveraging the Multi-functionality of School Gardens (16-18 Apr 2018, SEARCA, Philippines)
- Forum on Promoting Sustainable Agriculture in the Mekong Sub-Region towards Food Security (6-7 Nov 2017, An Giang, Vietnam)
- Regional Workshop on Mainstreaming Biodiversity in Agriculture for Sustainable Development and Food Security in Southeast Asia (12-14 Sep 2017, Chiang Mai, Thailand)
- Policy Roundtable: Rice Policies across Southeast Asia (8 Dec 2016, SEARCA, Philippines)
- Regional Roundtable Discussion and Workshop on the Development of Ecological Monitoring Network in Southeast Asia (24-25 Oct 2016, SEARCA, Philippines)

- Policy Roundtable on Ensuring Food Security through Improving the Agricultural Insurance Program to Enhance Resilience to Climate Change in Southeast Asia (29-30 July 2015, Makati City, Philippines)
- Regional Consultation Workshop on the Umbrella Program on Climate Change Adaptation and Mitigation for Southeast Asia (12-14 May 2015, Hanoi, Vietnam)
- Second International Conference on Agricultural and Rural Development in Southeast Asia (ARD2014) (12-13 Nov 2014, Makati City, Philippines)
- Regional Consultation Workshop: Umbrella Program on Food Security (25-26 Jul 2013, SEARCA, Philippines)

► ACHIEVEMENT AWARD IN AGRICULTURAL AND RURAL DEVELOPMENT

In pursuit to honor excellence, leadership, and service in advancing agricultural and rural development in Southeast Asia, SEARCA will launch the young achiever award in ARD, in collaboration with key partners, to exemplary young individuals in the region. The objective of the award is for re-engaging the youth and recognizing young individuals who have advanced ARD in the region through their leadership, innovation, and achievement. These young individuals have demonstrated workmanship and commitment in accelerating transformation through agricultural innovation that contributes to the achievement of the Sustainable Development Goals (SDGs).

Dioscoro L. Umali Achievement Award in Agricultural Development

From 2007 to 2015, SEARCA has awarded the Dioscoro L. Umali Achievement Award in Agricultural Development to recognize exemplary contributions in the field of agriculture and rural development. It is a collaboration among SEARCA, the National Academy of Science and Technology, Philippines (NAST, Philippines), and Dioscoro L. Umali Foundation, Inc. (DLUF). The achievement award covers a full range of fields including plant and animal sciences, land and water management, environment and natural resource management, technology development, social organization, food security, poverty reduction, economics and business, and policy and governance, among others.

In November 2009, Prof. Charan Chantalakhana of Thailand was conferred the second Umali Award for his pioneering research on the genetic improvement of cattle and buffalo which led to the development of



a new cattle breed called "Khamphaeng Saen". The breed helped small dairy farmers reduce cost of production and expand dairy herds in Thailand and other parts of region including Cambodia, Lao PDR, and Vietnam

▶ RESEARCH PUBLICATIONS

Agroforestry Status, Trends, and Outlook in Southeast Asia

The World Agroforestry (ICRAF) and SEARCA recognize the momentum brought by the adoption of the ASEAN Guidelines for Agroforestry Development and would like to harness this development by heeding the call of the ASEAN food, agricultural, and forestry (FAF) sector to produce the first Agroforestry Status, Trends and Outlook for Southeast Asia. The report published in 2021 gathered the relevant perspectives from key stakeholders in the sector to respond to the challenges and ensure resilient interventions in agroforestry. This will further guide development efforts and sustainable policies that can shape leadership roles, produce more responsive institutional arrangements, and enhance governance.

Under the Technical Cooperation Program of the Food Agriculture Organization of the United Nations (FAO) and the ASEAN Secretariat on "Scaling up Agroforestry for food security and environmental benefits in Southeast Asia," the ASEAN Food, Agriculture and Forestry sector is requesting a report that encapsulates the status, trends and outlook of agroforestry in the Southeast Asian region. Such report will:

- Provide information on agroforestry practices, concepts, programs, policies, training, education and research, industry, issues/challenges, impacts and other relevant aspects.
- Draw an outlook of agroforestry into the future toward a resilient Southeast Asian region.
- Have an accompanying monitoring and reporting design for ASEAN Member States, which
 include Thailand, to report on contributions and progress toward achieving resilience
 through agroforestry in the region.

Farms, Food, & Futures: Toward Inclusive and Sustainable Agricultural and Rural Development in Southeast Asia

Dubbed as Agriculture and Rural Development (ARD) Book 2016, SEARCA spelled out in this publication the nuances of productivity-enhancing interventions moving forward, carefully drawing from in-depth analyses and syntheses of lessons, experiences, and empirical evidence on Asia's ARD. The book provided an overview of the complex issues and challenges, as well as opportunities arising from the structural transformation and market integration happening in the region. For the ARD Book 2016, SEARCA assembled eminent experts and thought leaders working in ARD in the region, and together authored the book with four cross-cutting and contemporary ARD themes, namely: inclusive growth; sustainability; regional integration; and institutions, governance and transformation.

Agriculture and Development Primer on Thailand

SEARCA published the Thailand primer as part of the "Southeast Asian Agriculture and Development Primer (SAADP)" Series which featured Southeast Asian country's state of agriculture in a holistic, yet concise form. Published in 2007, the first edition presents the country's state of agriculture in a holistic yet concise form and shows the institutions, structures, policies, and other areas affecting the sector's performance over the past three decades. It was authored by Dr. Nipon Poapongsakorn, who was then President of Thailand Development Research Institute and former Dean of the Faculty of Economics, Thammasat University.

Published in 2017, the second edition analyzes the country's experiences, lessons, and insights on policy reforms and institutional innovations in the agriculture sector. It reveals how Thailand regained its competitiveness in food and agriculture products through liberalization of its trade policy and prudent macroeconomic management. The primer also discusses the major structural changes in the country's agriculture sector that led to its strong resurgence as a key driver of Thailand's economy, particularly the government's efforts to enhance food safety. The second edition was authored by Dr. Nipon Poapongsakorn and Ms. Isriya N. Bunyasiri.

Other Publications

SEARCA has published books, monographs and other publications on various topics related to Thailand's agriculture. Many of these were outputs from SEARCA's research projects and knowledge events. The most recent publications include the following:

- ECO-BEST: The Economics of Ecosystems and Biodiversity (TEEB) in Thailand/Southeast Asia
- The Role of Universities in Agriculture and Rural Development: The Case of Thailand
- Post-logging Ban Timber Tree Planting in Thailand and the Philippines
- Gender Concerns in the Post-production of the Selected Horticultural Crops in the Philippines and Thailand: Issues and Perspectives
- Organization and Policy Adjustment Implication of AFTA: The Case of Thailand
- How India and Thailand are Stretching Incomes by Integrating Rubber into their Farming Systems

Thailand is also featured along with other countries in 42 publications published by SEARCA.

Meanwhile, three articles on Thailand were published in the Asian Journal of Agriculture and Development (AJAD), SEARCA's international refereed journal. Published twice a year in June and December, AJAD is indexed in the Emerging Sources Citation Index (ESCI) of the Web of Science (WoS), EBSCO Information Services, Research Papers in Economics (RePec), AgEcon Search, Socio-economic Research Portal for the Philippines (SERP-P), CAB Abstracts, ASEAN Citation Index (ACI), The Essential Electronic Agricultural Library (TEEAL), and Australian Business Deans Council (ABDC).

Moreover, 15 Thais co-authored in 12 other SEARCA publications, including four AJAD articles.

▶ AGRICULTURE, FORESTRY, AND NATURAL RESOURCES (AFNR) KNOWLEDGE PLATFORM

For almost six decades, SEARCA has been actively working with different like-minded institutions and networks in conducting research that addresses critical issues related to the region's agricultural and rural development. Capitalizing on this knowledge resource, SEARCA is leading the establishment of the Agriculture, Forestry, and Natural Resources (AFNR) Knowledge Platform.

This primarily aims to facilitate and sustain an ecosystem for knowledge sharing that contributes to agricultural and rural development in the Southeast Asian region and beyond. It also ensures access to an accurate, highly credible, sound, timely, and reliable source of information that will fuel future research activities, capacity building initiatives, policy development and technological innovations aimed at accelerating transformation in the region's agricultural sector.

It has three main components: knowledge generation, exchange, and utilization.

Knowledge generation includes the conceptualization and organization of opportunities for knowledge sharing and learning (conferences, roundtable discussions, webinars, etc). Part of this is facilitating the link with other SEARCA programs and the AFNR KP. While AKRU works on scholarly publications, AFNR will work on popular formats, addressing the needs of our other stakeholders and providing another entry point/access to other SEARCA resources.

The second part is the Knowledge Exchange, the actual website itself. In this part, contributions of the programs will be categorized into these thematic areas. These are loosely based on our ATTAIN Priority Areas (our current five-year plan): Food and Nutrition Security; Sustainable Farming Systems and NRM; Value Addition, E-Commerce, and Industry Development; Policy and Thought Leadership; and Training and Capacity Building. There will also be links to other tools/resources like the SEARCA Library, AgPractices, Access Agriculture videos, etc.

The last part is knowledge utilization, the community of practice. We envision the contents of the AFNR KP to stir discussions in the COP. Regular activities (example: online forum on a certain timely/relevant topic) will be designed to keep the COP active and engaging.

EMERGING INNOVATION FOR GROWTH



SEARCA's core program on Emerging Innovation for Growth (EIG) is focused on providing farmers and farming families wider access to innovative products and services as well as business models for increased productivity and income through:

- · Open Innovation and Agri-Incubation
- Knowledge and Technology Transfer
- Project Development, Monitoring, and Evaluation

▶ InnovElGhts

The InnovEIGhts program is envisioned to support, facilitate, and implement co-created and co-piloted agribusiness incubation, information and technology transfer projects, and impactand action-driven extension and technical assistance engagement for Southeast Asia. The said program envisions to establish and develop the agriculture and rural development sector through:

- Agricultural technology development and technology transfer,
- Adaptation and adoption of village-scale relevant technologies,
- · Inclusive rural community development
- Local and immediate agribusiness clustering, and
- Gender inclusive and high impact projects.

The program also intends to achieve a number of goals in support of inclusive agricultural and rural development:

- Strengthen university public agri-research and university-based agribusiness incubators to promote local inclusive innovation ecosystem,
- Provide platform and projects for more effective and efficient prototyping, up-scaling, and commercialization of technologies and delivering impact-driven farming community assistance,

- Provide value-added services and assistance in the promotion of A/F tech-based startups and in the scaling-up of existing agri-technologies and agri-enterprises.
- Advance knowledge, attitude, and skills of farming communities and startups through innovation and entrepreneurial mentoring and trainings, and
- Build a coalition of support services from key government institutions and other relevant stakeholders.

The InnovEIGhts program is a combination of independent but highly integrated components design to achieve SEARCA ATTAIN in aligned to targeted SDGs and to serve the different levels of beneficiary-stakeholders and Academe-Industry-Government (AIG) partners.



The program is composed of:

- 1. Innovation Index Studies (InDex) is the research and information arm of the InnovEIGhts program.
- Specialists and Experts for Rural Viable Emerging Solutions (SERVES) is a program that provides co-created and co-piloted farming family and farming community livelihood projects that identify and implement innovative but practical solutions to persistent farming challenges.
- 3. Emerging Ideas Competition (iDEATES) focuses on engaging the youth, children, and agri-innovators in promoting agri-innovation and scientific farming methods to modernize agriculture and build local rural innovation ecosystems.
- 4. Building Linkages and Open Collaboration for Knowledge System (BLOCKS) is an innovative and open shared service hub that offers a platform and networks of fabrication centers, design resources, experts, and projects. It is responsible for promoting locally adaptable agri-technologies and practices that can be adopted by small farmers and rural communities.
- 5. Agriculture 4.0 Livelihood Integration towards Farming Enterprises (A4LIFE) focuses on building local and community-based innovation ecosystem and inclusive agribusiness value chains. It aims to produce a generation of green startups and agripreneurs.
- SEARCA Hub for Agriculture and Rural Innovations for the Next Generation (SHARING) is a powerful innovation and open collaboration platform and access tool that serves as a gateway for information, programs, resources, and networks in the world where SEARCA operates.

InDex

Innovation Index Study (Innovation Studies and Cases)

Provides access to information, cases and studies on ASEAN ARD, innovations, technology readiness, best practices, and benchmarks to serve as basis for policy making and decision making

SERVES

Specialists and Experts for Rural Viable Emerging Solutions

Provides farming communities with direct advisory services and linkages for innovation

IDEATES

Emerging Ideas
Competition

A venue for radical young innovators to turn ideas into winning practical tech solutions

BLOCKS

Prototyping and rechnology Adaptation Shared Service Facility

A makerspace that promotes scalable and innovative farm practices, models, and techs to ncrease their adoption and adaptation in communities

A4Life

Agribusiness Incubation and Technology Acceleration

Promotes livelihood integration to enterprise through incubation of green startups; Accelerates technology adoption, adaptation and deployment through access to manufacturing, marketing and other networks.

SHARING

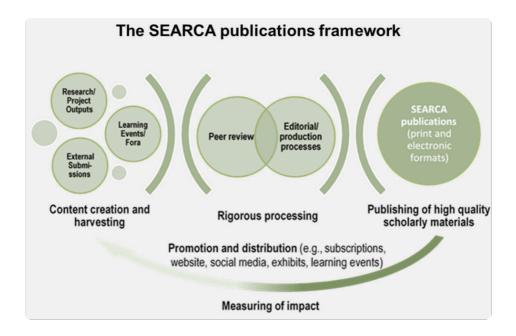
SEARCA Hub for Agricultural and Rural Innovations for the Next Generations

A platform that serves as a tool to accelerate the expansion of a collaborative (open) innovation network for connecting communities and industry partners' needs with the right research expertise and best funding possibilities.

Benchmarking of the Agricultural Research for Development (R4D) Management System with Selected Asian Countries

This project focuses on highlighting the experiences, challenges, best practices, strategic directions, and opportunities of different agricultural organizations in Thailand, Malaysia, South Korea, and Japan that are providing R4D grants and has the same mandate as the Department of Agriculture – Bureau of Agricultural Research (DA-BAR). Currently, the project team is conducting a series of key informant interviews (KII), site visits, meetings, and consultations for the DA-BAR-funded benchmarking project.

APPLIED KNOWLEDGE RESOURCES



The Center's applied knowledge resources contribute to SEARCA's vision of becoming Southeast Asia's leading enabler and champion of excellence in ARD, particularly by asserting leadership in knowledge creation in these fields. Apart from the packaging of knowledge through publication, these knowledge products are also shared through its websites and increasingly complemented by social media. SEARCA also maintains a library and an archives system to store generated knowledge.

▶ PUBLICATION

SEARCA publication provides one important avenue for knowledge creation in ARD. This ensures that research results, policy discussions, and best practices from the field, among its primordial knowledge sources, are packaged and broadly shared. SEARCA aims to publish high-quality professional, intellectual, and scholarly output in ARD with scholars, researchers, and policymakers as intended readers. A broad spectrum of ARD themes is published through a number of serial and non-serial SEARCA publications that include books, journal articles, monographs, discussion papers, and policy briefs.

Publishing for over half a century now, SEARCA has a publication pipeline of materials primarily sourced from outputs of its staple programs. External contributions are also welcome, notably for the Center's priority thematic content. All materials submitted for publication as books, monographs, or journal articles undergo rigorous peer review and editorial processes to ensure high quality.

Over 500 various publications are curated in SEARCA's knowledge inventory system (mostly those published year 2000 onward). As of 30 June 2023, 14 titles either focused on Thailand or included it in its country of coverage have been published by SEARCA. These include a book (1) monographs (7), discussion paper series (1), briefs and notes (4), proceedings (1), and journal articles (30).

▶ PROMOTION AND DISTRIBUTION

The Center has, in recent years, been investing in ensuring that its publications and other knowledge products maximize their intended use and not gather dust on a shelf. As it were, its momentum for more visibility online has proven more relevant than anticipated during the pandemic that started in 2020. The situation resulted to lessened printing and suspended the traditional distribution of physical copies and face-to-face knowledge exchanges/interactions.



The SEARCA website complemented by its social media presence are the current channels in which the Center's knowledge creations are accessed. Almost all publications are downloadable for free; learning/knowledge events and presentations are also freely accessible.

As of 30 June 2023, a total of 45,310 publications have been downloaded from searca.org, SEARCA's official website. Over 23,000 people from 159 countries have downloaded these knowledge materials. The most downloaded types are refereed journal articles, books and monographs, and various briefs and notes. As of June 2023, 398 downloads of SEARCA publications have been made by Thais.

LIBRARY AND ARCHIVES

The SEARCA library, which houses a collection of over 15,500 agriculture and development-related references, serves primarily SEARCA scholars and staff, but it also accommodates other users. The references are also listed in SEARCA's online library information system (LIS) https://lis.searcaapps.org/lis/ to facilitate faster access and search. The LIS also includes theses and dissertations of SEARCA scholars as well as weblinks to various online resources, such as articles on the latest updates in agriculture and development.



The Center's archives have digitized all

vital records for efficient information processing, storage, access, and dissemination. As of September 2023, over 6,500 SEARCA documents have been digitized, including personnel and scholars' records, project reports, publications, financial statements, agreements, directors' exit reports, five-year plans, memorandums, and contracts.

MANAGEMENT

Thailand is currently represented in the SEARCA Governing Board by Assoc. Prof. Dr. Sutkhet Nakasathien, Vice President for Research and Creation, Kasetsart University. The SEARCA Governing Board is the Center's highest policymaking body composed of representatives of the 11 SEAMEO member countries.

At present, the SEARCA Director is Dr. Glenn B. Gregorio. The Deputy Director for Programs and the Deputy Director for Administration are Dr. Nur Azura Binti Adam and Assoc. Prof. Joselito G. Florendo, respectively.

