



MYANMAR AND SEARCHA

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. Myanmar joined SEAMEO in 1998.

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
3. 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

SEARCA has been awarding scholarships (MS and PhD) in agriculture and related fields to Myanmar nationals since 1999. So far, SEARCA has awarded 109 full graduate scholarships (58 MS, 51 PhD). Of this number, 10 were supported by the International Development Research Centre (IDRC) of Canada and 32 were funded by the German Academic Exchange Service (DAAD). As of 30 June 2023, 96 Myanmar scholars (52 MS, 44 PhD) have completed their graduate programs.

NTU-SEARCA Joint Scholarship Program for Global Agriculture Technology and Genomic Science (Global ATGS)

A partnership between the National Taiwan University (NTU) and SEARCA, the joint scholarship aims to cultivate agricultural professional talents, encourage academic excellence, and promote research and development in agriculture within Southeast Asia through a two-year Master Program in Global Agriculture Technology and Genomic Science (Global ATGS). The academic program tackles emerging agricultural biotechnologies and smart agriculture through its cross- and inter-disciplinary curriculum. Since its pilot offering in AY 2020/2021, SEARCA has awarded two Myanmar national.

PhD Research Scholarship

The first Myanmar recipient of this scholarship is Ms. Cho Cho Aung of the Department of Agricultural Research, Ministry of Agriculture, Livestock and Irrigation (MOALI) completed her PhD in Agronomy at Yezin Agricultural University (YAU) in 2019.

Food Security Center Scholarships

Myanmar students had received scholarships for participation in short courses funded by the Food Security Center (FSC) of the University of Hohenheim, Germany. FSC is one of the five excellence centers of the Exceed-Higher Education Excellence in Development Cooperation program supported by DAAD with funds from Germany's Federal Ministry of Economic Cooperation and Development (BMZ).

The FSC aims to make effective and innovative scientific contributions to research, teaching, and policy toward achieving food security in collaboration with partner universities in Asia, Africa, and Latin America as well as national and international development and research organizations.

Being a network partner of the FSC, SEARCA had organized and hosted FSC activities, including the following short courses attended by Myanmar nationals:

- Short Course on Planetary Health Approach in Addressing Food Safety Considerations and Environmental Challenges (2018)
- Short Course on General Education Program in Addressing Food Security (2017)
- Short Course on Methods and Approaches in Food Value Chain Analysis at the Firm-Farm Level (Aug 2015)
- Short Course on Food Supply Chains and Logistics (Jul 2014)
- FSC Summer School with the theme "Sustainable Agricultural and Rural Development for Food Security" (Nov 2013)
- Short Course on Values and Institutions of Biodiversity and Ecosystems (Nov 2010)

English Course for SEARCA Scholars

Myanmar SEARCA scholars were among the participants of the English Course for Academic Purposes that SEARCA offers as a staple course to enhance the learning and participation of new scholars in their graduate programs.

Special Graduate Seminar

The special graduate seminar is held once every semester and highlights outstanding research by a SEARCA scholar. Hosting the seminar is the Center's way to support the scholars' academic milestones and to recognize their capacity to produce quality research that has a great impact on agriculture and rural development. Dr. Myint Myint Soe (PhD Entomology, UPLB) presented her research titled "Superparasitism and Multiparasitism of three Mango Leafhopper species by Strepsipterans, *Callipharixenos philippines* Katharithamby and McMahon and *Halictophagus fulmeki* (Hofender)" at the Special Graduate Seminar held on 26 March 2014.

Graduate Alumni

Of the 109 SEARCA graduate scholarships awarded to Myanmar nationals, 96 (57 master's and 52 PhD) have been completed. The scholars are now called SEARCA graduate alumni.

As a testimony that the SEARCA graduate scholarship program is a key factor in agricultural human resources development in Myanmar, a number of these graduate alumni are now occupying key positions of responsibility in the Ministry of Agriculture and Irrigation while others are faculty members of various universities.

► SEARCA SUMMER SCHOOL

One Myanmar was among the select group of graduate students from seven countries who participated in the first offering of the SEARCA Summer School on Food and Nutrition Security for Sustainable Development in Southeast Asia, a one-month program conducted in October 2014 by SEARCA and the SEARCA-initiated Southeast Asian University Consortium for Graduate Education in Agriculture and Natural Resources (UC).

The following year, three Myanmar were among the 16 graduate students and young faculty members from agricultural universities in Southeast Asia who took the Postgraduate Course



in Food and Nutrition Security and Sustainable Agriculture in Southeast Asia offered at the University of the Philippines Los Baños (UPLB) on 24 June to 15 July 2015.

In the succeeding years, Myanmar continued to be among the participants of the annual Summer School organized by SEARCA with members of the UC and with support from FSC of Germany.

The postgraduate course was one of SEARCA's new initiatives under its new strategic plan, and was eventually taken in by the UC, a network of top agricultural universities in Southeast Asia committed to share academic expertise and information.

Launched by SEARCA in 1989, the UC currently comprises nine members in Southeast Asia, namely: Institut Pertanian Bogor (IPB), Universitas Gadjah Mada (UGM), Universitas Brawijaya (UB), all in Indonesia; Universiti Putra Malaysia (UPM); Kasetsart University (KU) and Maejo University (MjU) in Thailand; and UPLB, Central Luzon State University (CLSU), and Visayas State University (VSU) in the Philippines. MjU, CLSU, and VSU joined in 2020 as Affiliate Members. Outside the region, the UC has two associate members: Tokyo University of Agriculture (Tokyo NODAI) in Japan and National Taiwan University (NTU); and two affiliate members: University of British Columbia (UBC) in Canada and Georg-August University of Göttingen in Germany. SEARCA serves as the consortium secretariat.

Since 2015, the Summer School has been an annual offering of the UC with its members hosting the event on rotation basis. The Summer School is an accredited graduate course. This means all participants can earn graduate school credit units upon completion of the course.

► INSTITUTIONAL DEVELOPMENT

Myanmar is one of the first three beneficiaries of SEARCA's Institutional Development Assistance Program, which seeks to develop centers of excellence in agricultural education in Southeast Asian countries. SEARCA selects strategic universities that have the potential to contribute to the country's development.



SEARCA has helped YAU in developing its curriculum in Agricultural Extension as a new major field for the BS Agricultural Science program. The IDA program also enables YAU faculty member and staff to benefit from SEARCA's graduate scholarship and short-term training programs, all of which aim to build the capacities of the university's workforce.

In February 2017, a short course on General Education Program in Addressing Food Security for YAU faculty and staff was held to assist YAU in revising their course syllabus to capacitate students address the complex challenges in the 21st century.

Moreover, SEARCA and MOALI jointly organized a series of workshops in 2016 to develop a new curriculum for Agricultural Extension, which is now being offered as a major field under YAU's BS Agricultural Science program. Related to this, two YAU faculty members were awarded scholarships to pursue graduate degrees related to Agricultural Extension. Ms. Kay Thi Khaing completed MS in Extension Education in 2018 and Ms. Yi Mon Thu recently graduated in PhD Extension Education, both from UPLB."

Moreover, a Short Course on General Education (GE) Program in Addressing Food Security was also organized at YAU on 20-24 February 2017. The five-day course was partially funded by the Food Security Center (FSC) project of the University of Hohenheim, which is part of the German Academic Exchange Service (DAAD) Program "Exceed" supported by DAAD and the

German Federal Ministry for Economic Cooperation and Development (BMZ). Through the workshop, the participants were introduced to GE and its curriculum structure and exposed them to the use of various teaching techniques that demonstrate the basic concepts and principles of the experiential learning approach to develop critical thinking among students. Officers from YAU also participated in workshop organized by SEARCA in partnership with the French Institute for Agricultural, Forestry, and Veterinary Sciences (Agreenium) to develop and implement joint education and research strategies to meet the challenges of food security and sustainable development.

Starting academic year 2014/2015, SEARCA also awarded four master's and 10 PhD scholarships to faculty members of YAU as part of its continuing institutional development assistance to the university. Ms. Thant Mon Paing completed her MS in Animal Science in AY 2020-2021.

■ 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 Myanmar joined SEAMEO in 1998, 267 Myanmar nationals had participated in 53 international, regional, and in-country SEARCA training, seminars, and learning forums on various topics, including:

- Leadership Development Program for Higher Education Institutions in Southeast Asia
- Establishing climate-smart villages
- Inclusive value chains
- Agricultural credit, managing rural development and agricultural projects
- Advanced Higher Education Administrators Development (AHEAD)
- Sustainable agriculture for the uplands
- Genebank documentation and data analysis
- Enterprise development
- Environmental economics for decision-making

- Research management
- Impact assessment of poverty alleviation
- Project development and management
- Climate change adaptation in watersheds
- Leadership Excellence in Academe Program for Southeast Asia (LEAP SEA)
- Leaders in ASEAN Agriculture and Development
- Integrating Climate Change Adaptation in Development Plans and Investments



Five of these learning events were held in Myanmar:

- In-Country Training Course on Sustainability of Community-based Natural Resource Management (27 April-9 May 1998, Hlegu, Myanmar)
- In-Country Training Course on Impact Assessment of Community-based Natural Resources Management (CBNRM) for Myanmar (8-20 March 1999, Hlegu, Myanmar)
- Advanced Higher Education Administrators Development (AHEAD) Training Course for Myanmar (27-31 August 2001, Yezin, Myanmar)
- Training Course on Strategies and Technologies for a Sustainable Agriculture for the Upland Areas (3-7 September 2001, Hlegu, Myanmar)
- Training-Workshop on Developing Fundable Research Project Proposals for Agricultural and Rural Development (6-10 November 2017)

RECOGNITION FROM THE MYANMAR GOVERNMENT

SEARCHA was recognized by the Republic of the Union of Myanmar for “its significant contribution and continuous support to sustainable Agriculture Sector Development through Human Resource Development in Myanmar.”

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 AND POLICY STUDIES

SEARCA has worked with various development organizations and research institutions in the implementation of the following completed research and policy studies in the ASEAN region, including Myanmar:

AgPractices&Domains Platform

The University of Southern Queensland, in partnership with SEARCA through its Agriculture, Forestry, and Natural Resources (AFNR) Knowledge Platform, and the local partner universities: namely, the University of Computer Sciences Yangon (UCSY) in Myanmar, and the University of the Philippines Los Baños (UPLB), developed a cloud-based AgPractices&Domains platform for network of researchers. The platform can carry out rice cropping systems monitoring and evaluation with the use of combined survey and data modelling tools as well as provide a community of practice that will facilitate learning and exchanges between partners and countries of the project.

The platform targets to reach at least 50 direct users and potential trainers who will support the network of users in their respective institute, and around 200 users accessing the platform. The AgPractices&Domains platform is envisaged to strengthen the National Research and Education Networks' (NRENs) Asi@Connect and accelerate information dissemination in the

region that supports R&D for rice crop farmers' adaptation to climate variability, and promotion of integrated pest and disease management.

Agricultural Transformation and Market Integration in the ASEAN Region: Responding to Food Security and Inclusiveness Concerns (ATMI-ASEAN)

Myanmar was one of the five ASEAN Member States (AMS) covered by this International Fund for Agricultural Development (IFAD)-funded project, which was complemented by the International Food Policy Research Institute (IFPRI) and SEARCA. The overall goal of the ATMI-ASEAN project was to strengthen the institutional capacity of the AMS to develop and implement policies and sub-regional programs as well as facilitate integration of smallholders in sub-regional agricultural and food markets. This was done through three main components and broad activities (1) Policy studies and expert workshops; (2) High-level policy forums and roundtables; and (3) Technical assistance for planning and policy development.

The Department of Planning of the Ministry of Agriculture, Livestock, and Irrigation (MOALI) served as the project's focal agency in Myanmar. MOALI-DOP led the national level activities in Myanmar to strengthen the competitiveness of small-scale rural producers and support their inclusion in regional agrifood markets. These include capacity building for evidence-based decision making, policy formulation, and monitoring and evaluation, among others. The Center for Economic and Social Development (CESD) conducted the project's policy study on Assessing Transformation and Integration of Pulses Sector in Myanmar: Responding to Food Security and Inclusiveness under the ATMI-ASEAN Project. The Roadmap for Scaling Up Myanmar Pulses Value Chain (2021-2025) was also developed and was launched in March 2023. Moreover, Myanmar also provided inputs to the Maize-Meat Regional Value Chain Assessment that was endorsed by the project to ASEAN Ministers on Agriculture and Forestry (AMAF).

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 Myanmar, and across existing ASEAN Free Trade Agreements (FTAs), and its implications on food security in the region.

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

Myanmar 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 Myanmar from 2014 to 2020:

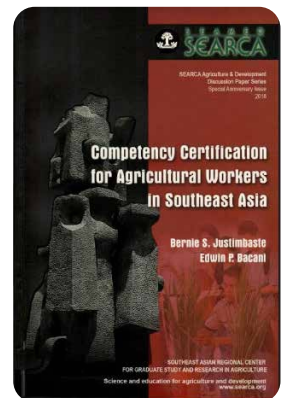
- Assessment of Non-Timber Forest Products in Mountainous Regions of Myanmar towards Community Forestry Development
- Enhancing Community Forest Performance in Myanmar by Reviewing Community Forestry Instructions (1995) through Stakeholders' Consultation Process
- Technical Study Tour on Social Forestry to Enhance Capacity Building Through Knowledge Sharing



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 non-formal 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 Myanmar, 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.

Landscapes: Inclusive Agribusiness in Southeast Asia

SEARCA conducted a scoping study that assessed and mapped relevant agribusiness players and their activities and roles in the region, with specific attention to Indonesia, Myanmar, the Philippines, and Vietnam. The study evaluated agribusiness innovation trends and highlighted key champions and practices in the ASEAN region. The study results were presented at the Roundtable on Inclusive Agribusiness in Southeast Asia held in Ho Chi Minh City on 23-25 September 2015, which gathered more than 100 key agribusiness practitioners from the private sectors, farmer's groups, government, academe, civil society organizations, and international organizations.

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

Myanmar 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 Myanmar 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.

ASEAN Network on Promoting Climate Resilience of Rice and Other Crops

Myanmar was one of the seven pilot countries under the project which aims to promote climate resilience of rice and other crops through increased coordination and knowledge sharing on enhancing climate resilience of agriculture related activities on the regional level.

The project produced country reports, Guidelines for Regional Cooperation on Climate Change Adaptation under the Climate Resilience Network, and Technical Guidelines on Scaling-Up Prioritized Climate Change Adaptation Measures; and the ASEAN Climate Resilience Network in Rice and Other Crops: Rationale, GAPs and Challenges, and Next Steps. It also initiated the formation of Climate Resilience Network (CRN).

Other Past Research Projects

SEARCA's earlier research initiatives in Myanmar were in the areas of plant genetics resources management as well as agro-industrial development planning and agricultural economics, which are important to a transition economy.

Myanmar was covered by a Mekong Subregional Capacity Building Initiative funded by Japan Foundation Asia Center and implemented by SEARCA in collaboration with Thailand's Khon Kaen University and the International Agricultural Center of the Netherlands.

SEARCA also implemented a research titled "Sources of Growth in Production and Livelihood of Four Rice-based Ecosystems in Myanmar" in cooperation with the International Rice Research Institute (IRRI) and Myanmar's Ministry of Agriculture and Irrigation. On the other hand, SEARCA's research activities related to the use and conservation of plant genetic resources in Myanmar were jointly conducted with the International Plant Genetic Resource Institute (now known as Bioversity International).

In 2000, SEARCA signed a Memorandum of Understanding with Myanmar Agricultural Service, a government entity under the Ministry of Agriculture and Irrigation of Myanmar, to promote and accelerate agricultural development through joint implementation of capacity building and research activities in the areas of sustainable agriculture and natural resource management.

► 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.



To address this concern and in line with the Center's thrust of promoting, 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.

To date, a total of six Myanmar nationals received SFRT grants, four of whom have completed their research projects.

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.

To date, five Burmese have been provided travel grants under the program.

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

Myanmar has been part of SEARCA's Policy Roundtable (PRT) Series, joining policymakers and rural development practitioners from Cambodia, Lao PDR, and Vietnam as well as from the Philippines and other Asian countries to discuss critical and emerging agricultural and rural development issues in the region and identify collaborative strategies and policy instruments toward responding to these issues.

Among the PRTs that were organized by SEARCA in Myanmar are:

- 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)
- Roundtable Discussion (RTD) on Policy Recommendations of the Study on Pulses in Myanmar (13 Aug 2019, Nay Pyi Taw, Myanmar)
- Policy Roundtable on Challenges and Opportunities of Agri-food Trade: The Case of Myanmar (20 Apr 2018, Nay Pyi Taw, Myanmar)
- Policy Roundtable on Rice and Important Agricultural Commodities in Myanmar (Rice++): Towards Evidence Based Policy Formulation (1 Apr 2017, Nay Pyi Taw, Myanmar)
- Policy Roundtable on Strengthening Agricultural Competitiveness: Exchange of Experiences and Lessons from the Transition Countries in Southeast Asia (6-7 Aug 2014, Yangon, Myanmar)
- Regional Integration of Myanmar's Agricultural Trade: The Role of South-South Cooperation (4-5 Sep 2013, Nay Pyi Taw, Myanmar)
- SEARCA partnered with Myanmar's Ministry of Agriculture, Livestock and Irrigation of the Republic of the Union of Myanmar, Ministry of National Planning and Economic Development (MNPED), National Economic and Social Advisory Council (NESAC), and Union of Myanmar Federation of Chambers of Commerce and Industry (UMFCCI) in co-organizing the said PRTs.



Moreover, it is noteworthy that most of the succeeding policy roundtable meetings in Myanmar from 2006 to 2011 were funded by Korea FAO, in partnership with SEARCA.

SEARCA also hold seminars/workshops in Myanmar as part of its research initiatives in the country:

- Climate Change: Impacts, Challenges, and Responses toward Strengthening Agriculture and Food Security in Transition Southeast Asia (2010, Mandalay, Myanmar).
- Biofuels Development: Challenges and Implications to Food Security in Transition Southeast Asia (2008, Nay Pyi Taw, Myanmar)

- Seminar on Biotechnology (2006, Yezin, Myanmar)
- Training Workshop on Genebank Documentation and Analysis (2003, Yangon, Myanmar)
- National Seminar-Workshop on Conservation and Utilization of Plant Genetic Resources (2002, Yangon, Myanmar)

Policy Roundtables and Conferences Participated in by Myanmar Nationals

Throughout the PRT Series, SEARCA also developed strong ties with the universities in Cambodia, Lao PDR, Myanmar, and Vietnam as they were often invited to participate in the roundtables and conferences. As universities are steeped in the culture of research, they were drawn in to collaborate with the ministries in post roundtable endeavors (e. g., research, training programs) toward formulating policy inputs. Myanmar nationals were able to participate in the following regional PRTs and conferences:

- 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)
- International Conference on School Gardens: Leveraging the Multi-functionality of School Gardens (16-18 Apr 2018, SEARCA, Philippines)
- 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)
- Policy Roundtable on Biotechnology: Biotechnology for Food Security in a Climate Change Scenario and ASEAN Integration (26-27 May 2014, Hanoi, Vietnam)
- Policy Roundtable on Mainstreaming Climate Change Adaptation in the Agriculture Sector towards Food Security in Southeast Asia (6-7 Feb 2014, Phnom Penh, Cambodia)

SEARCA also partnered with Myanmar's Ministry of Agriculture and Irrigation as well as the United Nations Food and Agriculture Organization-Regional Office for Asia and the Pacific (FAO-RAP) in the conduct of a Roundtable on Strengthening Agriculture Competitiveness for Cambodia, Lao PDR, Myanmar, and Vietnam in Yangon in August 2004.



► 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 2017 on the occasion of SEARCA's 50th Anniversary celebration, Mr. Tin Htut Oo, an outstanding development advocate from Myanmar, was conferred the 5th Umali Award for his work in the public service, private sector, and civil society that has contributed

significantly to the advancement of agricultural and rural development in Myanmar. Specifically, Mr. Tin Htut Oo was cited for his successful establishment of the agricultural market information service; introduction of in-service training for young agricultural graduates on advanced technology and agribusiness; his continuing advocacy for a new vision in agricultural policy-making leading to the inclusion of Myanmar's agriculture in the global value chain; and for his expert guidance to various regional and international organizations working on ARD.

Another Myanmar national, Dr. Tin Htut was recognized for being one of SEARCA's staunch partners in carrying out the Center's capacity building mandate on agricultural and rural development in Myanmar. Mr. Tin Htut Oo is the first Myanmar and only the fifth recipient of the Umali Award.



Mr. Tin Htut Oo is the first Myanmar and only the fifth recipient of the Umali Award.

► 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:

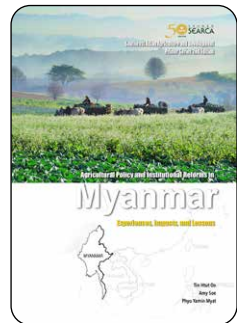
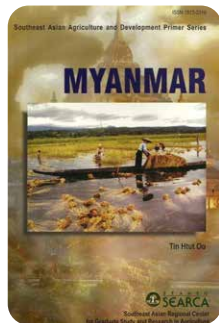
- Provide information on agroforestry practices, concepts, programs, policies, training, education and research, industry, issues/challenges, impacts and other relevant aspects.
- Draw an outlook of agroforestry into the future toward a resilient Southeast Asian region.
- Have an accompanying monitoring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

SEARCA published a primer on Myanmar in 2006 as part of its Southeast Asian Agriculture and Development Primer (SAADP) Series. Each volume of the series presents the featured Southeast Asian country's state of agriculture in a holistic, yet concise form. Authored by Mr. Tin Htut Oo, the Director-General of the Department of Agricultural Planning, Ministry of Agriculture and Irrigation at the time of publication, it shows the institutions, structures, policies, and other areas affecting the sector's performance over the past three decades.



In 2017, SEARCA published the second edition of the Myanmar primer authored by Tin Htut Oo, Amy Soe, and Phyu Yamin Myat. It focused on agricultural policies and institutional reforms, noted the need to shift to market-based, diversified, and modernized production approach and improved supply and value chains.

Other Publications

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

- Enhancing Community Forest Performance in Myanmar by Reviewing Community Forestry Instructions (1995) through Stakeholders' Consultation
- Impacts of Cyclone Nargis on Livelihood, Food Security, and the Agriculture Sector in Myanmar
- 5th D.L. Umali Award Lecture - Disruptive Innovation for Transformational Agricultural Development in Myanmar: Empowering Smallholder Farmers to Become Agribusiness Entrepreneurs



- Determinants of Food Security of Some Vulnerable Rural Households in the Central Dry Zone, Myanmar
- Solid Waste Management Badly Needed in Myanmar
- Rebuilding Myanmar's Agriculture after Cyclone Nargis
- Policy Roundtable on Challenges and Opportunities of Agri-food Trade: The Case of Myanmar (ATMI-ASEAN)

Myanmar is also featured along with other countries in 28 publications published by SEARCA.

Meanwhile, six articles on Myanmar 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, 16 Myanmar co-authored in 11 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

► InnovEIGhts

The InnovEIGhts program is envisioned to support, facilitate, and implement co-created and co-piloted agribusiness incubation, information and technology transfer projects, and impact- and 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:

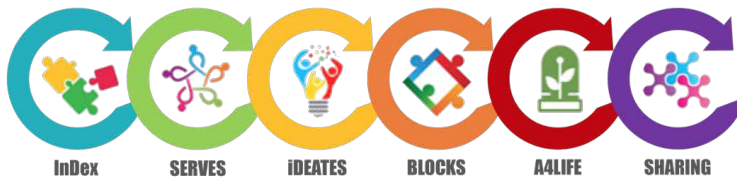
- Agricultural technology development and technology transfer,
- Adaptation and adoption of village-scale relevant technologies,
- Inclusive rural community development
- Local and immediate agribusiness clustering, and
- Gender inclusive and high impact projects.

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.
2. 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.
6. 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 Technology Adaptation (Shared Service Facility)

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

A4Life

Agribusiness Incubation and Technology Acceleration

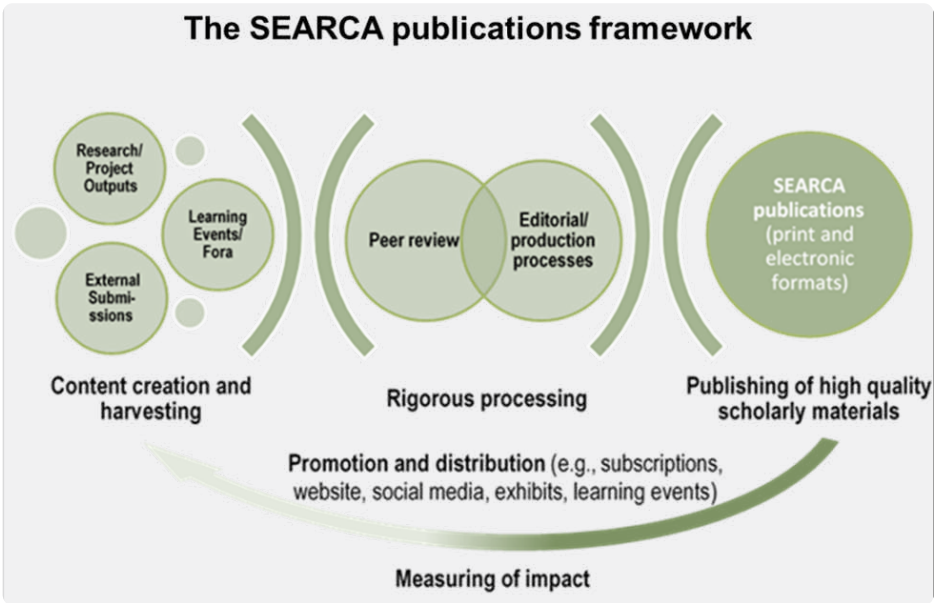
Promotes livelihood integration to enterprise through incubation of green startups; Accelerates technology adoption, adaptation and deployment through access to manufacturing, marketing and other networks.

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.

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.

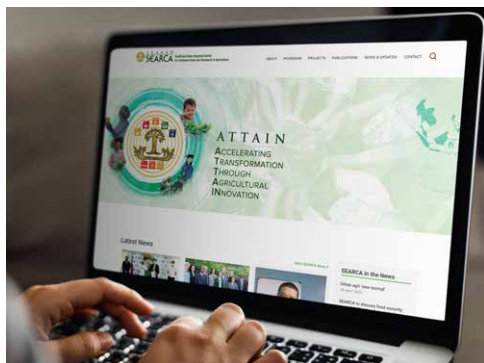
Publishing for over half a century now, SEARCA has a publication pipeline of materials primarily sourced from outputs of its staple programs. External contributions are also welcome, notably for the Center's priority thematic content. All materials submitted for publication as books, monographs, or journal 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, 24 titles either focused on Myanmar or included it in its country of coverage have been published by SEARCA. These include monographs (7), discussion paper series (1), briefs and notes (4), proceedings (1), and journal articles (11).



► 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, 255 downloads of SEARCA publications have been made by Myanmar nationals.

► 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

Myanmar is currently represented in the SEARCA Governing Board by Dr. Ye Tint Tun, Director General, Department of Agriculture, Ministry of Agriculture, Livestock, and Irrigation, Myanmar. 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.

