



# CAMBODIA AND SEARCA



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. Cambodia joined SEAMEO in 1971.

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.

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### **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.



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 full master's and PhD scholarships to 98 Cambodians (70 MS, 28 PhD). Of these, 19 were supported by the German Academic Exchange Service (DAAD) and 11 were funded by the International Development Research Centre (IDRC) of Canada and administered by SEARCA under the Graduate Scholarship for Upland Agriculture and Food Security project. Meanwhile, four scholars are supported under the SEARCA-Nagoya University Scholarship Project. Of the Cambodian scholars, 80 had completed their study programs (64 master's, 16 PhD).

## PhD Research Scholarship

SEARCA's PhD Research Scholarship provides financial support to qualified PhD students whose dissertation research are relevant to the priority thrusts of SEARCA. In 2008, Dr. Dok Doma of the Ministry of Rural Development received a PhD research scholarship for his study titled "Socioecological Contribution in Marine Fisheries: An Evaluation of Sre Ambil Coastal Lagoon Fisheries, Cambodia." He earned his PhD in Aquaculture and Aquatic Resources Management from the Asian Institute of Technology in Bangkok, Thailand.

## Joint Scholarship under Memorandum of Agreement with Center of Excellence for Sustainable Agricultural Intensification and Nutrition (CE SAIN) of the Royal University of Agriculture (RUA) and Universiti Sains Malaysia (USM)

Under this agreement for the project "Development of Innovative and Sustainable Aquafeed Using Local Agro-Residual Resources," one Cambodian has been awarded to pursue MS at USM effective second semester AY 2021-2022. This is in response to the need of Cambodia for an aquatic science expert. The scholar is expected to contribute to CESAIN's project funded by the Feed the Future Innovation Lab for Fish and enhance the capacity of RUA's Faculty of Fisheries.



## IDRC-SEARCA Scholarship Project

Cambodia is one of the four countries covered by the IDRC-SEARCA Graduate Scholarship for Upland Agriculture and Food Security. All of the 11 Cambodian scholars awarded through the project had completed their master's program at the University of the Philippines Los Baños (UPLB).

## NU-SEARCA Joint Research Scholarship in Agriculture

SEARCA and Nagoya University (NU) have embarked on a Joint PhD Research Scholarship project to contribute to the development of high-quality agricultural human resources in Cambodia by enabling at least four PhD candidates from the Ministry of Agriculture, Forestry and Fisheries (MAFF) to pursue the NU Transnational PhD Program at the NU Satellite Campus in the Royal University of Agriculture. There were four scholars under the project. The NU-SEARCA scholars were selected from among mid- and senior-level executives in MAFF who are engaged in framing policies or are researchers or technical staff involved in activities related to agriculture and veterinary science.



### **UPM-SEARCA Joint Scholarship**

SEARCA and UPM initiated a joint graduate scholarship program in 2012. Ms. Bunnet Nha was awarded to pursue her PhD in Animal Science at UPM under this program.

### **Tokyo NODAI-SEARCA Scholarship for Dissertation Doctorate Program**

The Tokyo University of Agriculture (Tokyo NODAI) and SEARCA provided a three-year scholarship to Mr. Ou Ratanak of the Ministry of Environment to conduct his dissertation titled "Estimating impacts of Ecotourism and NTFP's on Livelihoods and Biodiversity Conservation in Cambodia." He obtained his Dissertation Doctorate in Agricultural Engineering at Tokyo NODAI in September 2014.

### **Asian-European MS in Food Science**

Three Cambodian scholars completed a 19-month course titled Asian European Master's Degree of Science in Food Science and Technology (specialized in agro-food industries). The course was implemented by SEARCA in 2001-2002 with three other partners from France, Malaysia, and Thailand. The scholars had to complete nine consecutive modules of coursework in nine months and 10 months of thesis work with an appointed supervisor either in Southeast Asia or Europe. The degree was granted by the National Food Science Engineering Institute (ENSIA) of France.

### **Academic Bridging Program**

This program provides assistance to nationals of Cambodia, Lao PDR, Myanmar, Timor-Leste, and Vietnam to strengthen their academic preparation and qualification to pursue graduate studies in agriculture and related fields. Aside from enabling scholars under this Program to enroll in undergraduate technical courses to enhance knowledge of their areas of specialization, the Program also supports English language proficiency training.

In support of this program, the UPLB Graduate School has offered a non-degree program specially designed to suit the academic background and specialization of each qualified candidate. Nine Cambodians received this scholarship, one of whom was able to gain admission to the MS in Horticulture program at UPLB.

### **Emerging Leaders in Transition Economies (ELITE) Awardee**



Dr. Seng Mom, a SEARCA alumna and Vice Rector of Royal University of Agriculture (RUA), Cambodia, received this special citation on the occasion of SEARCA's 50th Anniversary in November 2016 for actively contributing to the rebuilding of her nation through her transformative leadership.

Dr. Seng completed her MS in Tropical Forestry at Georg-August University of Göttingen in Germany under the SEARCA-Centre for Tropical and Subtropical Agriculture and Forestry (CeTSAF) scholarship in 2001.

### **Master of Science in Food Security and Climate Change (MS FSCC)**

RUA and University of Battambang (UBB) were among the partners in the recently concluded MSFSCC project funded by ERASMUS+. Initiated by the Southeast Asian University Consortium

for Graduate Education in Agriculture and Natural Resources (UC), the project was led by Kasetsart University and conducted from 2016-2019. Aside from the UC members, RUA, and UBB, other partners included Chiang Mai University and Prince of Songkla University (Thailand), Central Luzon State University (Philippines), Nilai University (Malaysia), Montpellier SupAgro (France), Gottingen University (Germany), BOKU (Austria), and the network partners: Agreenium, Agrinatura, and SEARCA.

A total of 15 Cambodian students participated in various MS FSCC activities such as summer schools, trainings and one-semester mobilities. Three students from UBB were also awarded one-semester mobilities in Europe. Five lecturers also participated in trainings conducted for the project.

### **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.

Mr. Sem Savuth (MS Agronomy, UPLB), "The Energy Costs of Cambodian Lowland Rice Grown in Different Methods," 9 May 2018.

## **► INSTITUTIONAL DEVELOPMENT**

Cambodia was one of the first beneficiaries of SEARCA's Institutional Development Assistance (IDA) Program, which provided support to develop centers of excellence in agricultural education in SEAMEO member countries. SEARCA selects strategic universities that have the potential to contribute to the country's development.

SEARCA has helped RUA in developing its curriculum, particularly in integrating business course to its agricultural economics program and continues to assist RUA in the development of its curriculum to align it with the current global trends. The IDA program also enables RUA faculty members 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. SEARCA also helped RUA to look for donors and partners who can support the development plans of the university, which envisions the university to be responsive to the development needs of Cambodia.

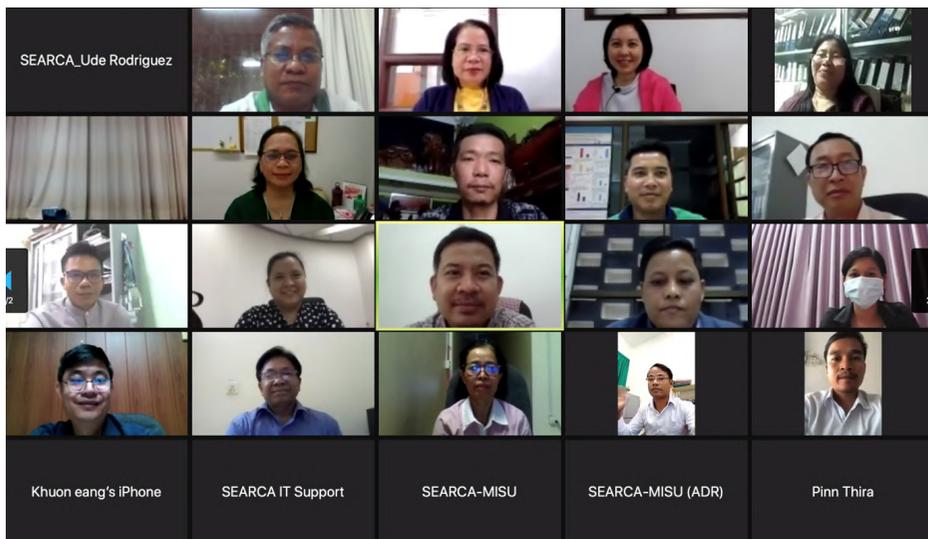
### **Graduate Scholarships**

Two new and ongoing IDA-SEARCA Scholars:

- Mr. Lyda Hok, PhD Agricultural Science, Kasetsart University
- Mr. Sokom Kong, PhD Sciences and Innovation for Animal Health, Kasetsart University

Two courses were conducted under IDA-RUA:

- Short Training Course on Water Resources Management for Smallholder Farmers, 5-9 October 2015
- English Enhancement Course, 4-8 June 2018



Screenshot during the 3rd online workshop for RUA on 1 December 2020.

In September 2020, SEARCA and RUA signed a memorandum of agreement to implement the 'Teaching-Learning and Research Capacity-building' of the Higher Education Improvement Project (HEIP) approved by the Royal Government of Cambodia with the Ministry of Education, Youth and Sports (MOEYS) as the executing agency of the HEIP. implementing the 'Teaching-Learning and Research Capacity-building' of the Higher Education Improvement Project (HEIP) approved by the Royal Government of Cambodia with the Ministry of Education, Youth and Sports (MOEYS) as the executing agency of the HEIP. Together, SEARCA and RUA will carry out the activities delineated in HEIP for promoting STEM and agricultural education and research at targeted higher education institutions and to start activities to strengthen higher education teaching-learning and research capacity in RUA.

Moreover, SEARCA and CE SAIN-RUA entered into a joint scholarship agreement effective January 2022 with the objective of contributing to the institutional capacity and human resources development of selected staff of RUA in Cambodia. The RUA staff are pursuing PhD graduate studies at Kasetsart University (KU) in Thailand with research topics focusing on agricultural extension models, agricultural research commercialization and the bridging of agriculture internship to employment competencies. The areas of expertise will significantly contribute to RUA's 10-year Strategy 2021-2030 to develop human resources in agricultural education and communication. To date, three RUA staff have been awarded.

In 2024, RUA and SEARCA signed a joint scholarship agreement to build the capacity of RUA faculty members, specifically within its Faculty of Agricultural Education and Communication. This agreement established a joint scholarship program for four RUA staff members to pursue PhD studies at the University of the Philippines Los Baños or Kasetsart University in Thailand in fields related to agricultural education and communication.

In 2000, SEARCA launched two projects:

- Sharing Resources in Higher Agricultural Education (SHARE), which sought to develop relations between members of the UC and develop universities in Cambodia, Lao PDR, Myanmar, and Vietnam
- Regional Volunteer Experts for Agricultural Modernization (REVEAM), which enabled SEARCA to conduct a Consultation Meeting cum Workshop on Agricultural Education, Research and Rural Development of Cambodia and a series of training on planning and proposal writing for the RUA in 2003 and 2004.

## ■ TRAINING FOR DEVELOPMENT

Short-term training continues to be one of the Center's most effective approaches for cultivating change makers and thought leaders capable of transforming the agriculture and rural development landscape in Southeast Asia.

Since SEARCA began this capacity building service in 1970, 971 Cambodians have participated in 204 international, regional, and in-country trainings, seminars, and learning events. Thirteen of these learning events were conducted in Cambodia:

- Training-Workshop on Developing an IQA System for RUA (22-25 May 2023)
- Seminar-Workshop on Developing an IQA Manual for RUA (24-28 October 2022)
- Workshop on Developing Communication Skills for Higher Education Institutions in Cambodia (2-6 May 2017)
- Workshop on Developing Fundable Research Project Proposals for Agricultural and Rural Development (28 Feb-4 Mar 2017)
- Leadership Excellence in Academe Program for Cambodia (29 February-4 March 2016)
- Sixth Executive Forum on Leadership Excellence in Academe Program for Southeast Asia (LEAP SEA) (26-30 Jan 2015)
- IFS-SEARCA Grant Proposal Writing Workshop (27 April-1 May 2009)
- Training cum Workshop on Operational Planning (Jan 2004) Screenshot during the 3rd online workshop for RUA on 1 December 2020.
- Research Proposal Writing Training Course, (15-19 Dec 2003)
- Training cum Workshop on Strategic Planning (8-12 Dec 2003)



Dr. Leangsrhun Chea of the Royal University of Agriculture participated in the Roving Workshop on Climate-Smart Villages as Platforms for Community-Level Anticipatory Climate Adaptation to Improve Food Security and Resiliency, which was conducted on a hybrid mode from 19-20 September 2023 (virtual sessions) to 25-30 September 2023 (onsite sessions). Photos were taken during the village visit in Guinyangan, Quezon Province and face-to-face session at the SEARCA Headquarters.

- Training Course on Strategies and Technologies in Sustainable Agriculture (9-11 Sep 2002)
- AHEAD Training Course with the Ministry of Agriculture, Forestry and Fisheries (2-6 Sep 2002)

**Institutional Cooperation in Training for Development**

Owing to the restrictions brought by the COVID-19 pandemic, Cambodian participants attended 13 learning events in 2020 and 2021 that were offered through online mode.

In 2020, SEARCA embarked on a series of workshops under the Development for an Internal Quality Assurance (IQA) System for the Royal University of Agriculture (RUA). This is part of a World Bank-funded Higher Education Institutions Capacity Improvement Project (HEICP) project for Cambodia. The SEARCA-RUA project aims to establish a broad-based technical cooperation for the development of an IQA standards and mentoring program for RUA. To date, SEARCA implemented 12 online and 2 face-to-face workshops on IQA manual development. The IQA manual for RUA is now being finalized.



RUA officials and staff with the SEARCA team at the closing session of the quality assurance training-workshop.

In 2016, SEARCA together with RUA, embarked on co-organizing and implementing three learning events that were funded by the Ministry of Education, Youth, and Sports (MoEYS) under the Higher Education Quality and Capacity Improvement Project (HEQCIP). A total of 137 faculty and staff from the various higher education institutions in Cambodia participated in training programs on leadership in the academe, developing fundable research project proposals, and developing communication skills.



In January 2015, SEARCA and the University of Battambang (UBB) signed an agreement to cooperate in the conduct of the Sixth Executive Forum on Leadership Excellence in Academic Program for Southeast Asia (LEAP SEA). The two institutions jointly funded the five-day learning event, which had 20 participants from six countries.

SEARCA also signed in 2004 a Memorandum of Agreement with Cambodia's Ministry of Agriculture, Forestry and Fisheries (MAFF), in relation to the Overseas Study Program on Inland Fishery Management to the Philippines for the Cambodia MAFF Staff and with Centre d'Etude et de Développement Agricole Cambodgien (CEDAC) in 1999 for a training workshop on farmer participatory extension.





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.

### ► ONGOING RESEARCH PROJECTS AND POLICY STUDIES

#### **Sustainable Agricultural Mechanization in Gender-Sensitive Food Systems Transformation in Asia (SAMGeFS)**

Cambodia is one of the seven countries covered by this Food and Agriculture Organization of the United Nations (FAO)-funded project. SAMGeFS aims to examine the different innovative approaches for broader adoption and upscaling of sustainable agricultural mechanization for a gender-sensitive food systems transformation in Asia. The project has three main components, namely, country assessments, case studies, and validation workshop and experts consultation.

#### **Building an evidence base to support the operationalization and scaling of nature-based climate solutions in small-scale aquaculture for inclusive and sustainable livelihoods and food systems**

SEARCA is co-implementing this project in with the International Institute of Rural Reconstruction (IIRR) to establish an evidence base and a conducive environment to support action, learning and sharing on gender responsive, socially inclusive and nutrition sensitive nature-based climate solutions (NbCS) in aquaculture in Cambodia.

## ► 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 Cambodia:

### **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 Cambodia's contract-based organic rice production was one of the six country-level case studies conducted. To support the documentation of some case studies and to get the viewpoint from farmers' organizations, SEARCA collaborated with the Asian Partnership for the Development of Human Resources in Rural Areas (AsiaDHRRA).

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

Cambodia was one of the five ASEAN Member States (AMS) covered by this International Fund for Agricultural Development (IFAD)-funded project, which was co-implemented by the International Food Policy Research Institute (IFPRI) and SEARCA. The overall goal of the ATMIASEAN project was to strengthen the institutional capacity of the AMS to develop and implement policies and sub-regional programs in support of 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 Ministry of Agriculture, Forestry, and Fisheries' General Directorate of Agriculture (MAFFGDA) served as the project's focal agency in Cambodia. MAFF-GDA led the conduct of the policy study as well as other national-level activities in Cambodia 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. MAFF-GDA conducted the Value Chain Analysis of Maize in Cambodia under the ATMI-ASEAN project which paved the way for the development of the Maize Industry Roadmap of Cambodia. Moreover, Cambodia also provided inputs to the Maize-Meat Regional Value Chain Assessment that was endorsed to the 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 Cambodia, 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**

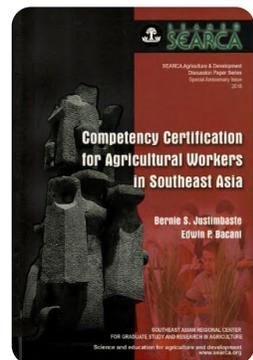
Cambodia was one of the countries covered by the ASEAN Working Group on Social Forestry Strategic Response Fund (ASRF), which SEARCA implemented as the supporting partner of the ASEAN-Swiss Partnership on Social Forestry and Climate Change (ASFCC). The ASRF is a flexible funding mechanism that aimed 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 five projects in Cambodia from 2014 to 2020:

- Strengthening the Community Forestry (CF) Program Coordination Committee at Subnational to Enhance CF Development in Cambodia
- Resource Trends Assessment and Feasibility Study on Sustainable Harvesting, Rehabilitation and Marketing on Non-Timber Forest Products in Siem Reap
- Assessment of Rights-based Community Forestry: A Case Study in Kampot and Kampong Thom Province, Cambodia
- Development and Pilot-testing of a Monitoring and Evaluation Tool for Community Forestry in Siem Reap and Kampong Thom Provinces, Cambodia Using Participatory Methods
- Community Forestry in Cambodia: A Review of Community Forestry Contribution to Livelihoods after 25 Years of Development

### **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 Cambodia, 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**

Cambodia 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 food stocks, 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 eight of the 11 Southeast Asian countries, SEARCA organized a workshop 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 Cambodia 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**

SEARCA also implemented the following research projects with significant outcomes in Cambodia:

- ASEAN Network on Promoting Climate Resilience of Rice and Other Crops (Dec 2013 - Jan 2015)
- Strengthening ASEAN Mechanisms for Reducing Emissions from Deforestation and Forest Degradation (REDD Plus) (Mar 2012 - Dec 2013)
- Biofuel Study on the Expansion of Subregional Cooperation in Agriculture in the Greater Mekong Subregion (GMS) (2009)
- Small Grants Programme for Operations to Promote Tropical Forest (SGPPTF) in South and Southeast Asia funded by the United Nations Development Programme (2001-2007)

## **► 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 two Cambodians received SFRT grants, both of whom had 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.

### **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 successful applicants received an IFS-SEARCA Advanced Grant to conduct their research within one to three years.

## ► POLICY ROUNDTABLES AND CONFERENCES

### Conferences and Technical Meetings

Cambodian nationals also participated in various fora toward the development of R&D projects/activities under research initiatives conducted and managed by SEARCA. These include the following:

- 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)
- First International Conference on School-plus-Home Gardens cum Biodiversity Enhancement Enterprise (SHGBEE1) (8-12 November 2022, Coron, Palawan, Philippines)
- Regional Training Workshop on Halal Slaughtering and Certification (23-25 August 2022, Putrajaya, Malaysia)
- Integrative Forum on Food and Nutrition Security for Southeast Asia (30 Sep 2019, Bogor, Indonesia)
- Regional Event on Understanding the Fundamentals of Halal towards Food Security in the ASEAN Region (8-11 Apr 2019; Putrajaya, Malaysia)
- ASEAN Multisectoral Workshop on Mainstreaming Biodiversity in Food and Agriculture (4-6 Dec 2018, Bangkok, Thailand)
- 4th High Officials Meeting on SEA-TVET (4-5 Sep 2018, Manila, 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)
- Regional Forum on Farms, Food, and Futures: Towards Inclusive and Sustainable Agricultural and Rural Development (7 December 2016, SEARCA, Philippines)
- Policy Roundtable on Ensuring Food Security through Improving the Agricultural Insurance Program to Enhance Resilience to Climate Change (29-30 Jul 2015, Manila, Philippines)
- Regional Consultation Workshop towards an Umbrella Program on Climate Change Adaptation and Mitigation in Southeast Asia for an Inclusive and Sustainable Agricultural and Rural Development (12-14 May 2015, Hanoi, Vietnam)
- Second International Conference on Agricultural and Rural Development in Southeast Asia: Strengthening Resilience, Equity and Integration in ASEAN Food and Agriculture Systems (12-13 Nov 2014, Manila, Philippines)
- Project Inception Workshop on the Impacts of El Niño Southern Oscillation (ENSO) Events on Cereal Production, Area, and Yield in Asia (8-10 Mar 2010, SEARCA, Philippines)
- Measures of Hope and Promises Delivered: An International Conference on Socioeconomic and Environmental Impact Assessment of Biotech Crops (29-30 Sep 2009, Bangkok, Thailand)
- International Conference-Workshop on Biodiversity and Climate Change in Southeast Asia: Adaptation and Mitigation (19-20 Feb 2008, Manila, Philippines)
- International Conference on Sustainability Science for Watershed Landscapes (13-14 Nov 2007, Honolulu, Hawaii, USA)

- Food Safety: Emerging Issues and Challenges in Sanitary and Phytosanitary Measures, (23-24 Aug 2007, Luang Prabang, Lao PDR)
- International Conference on Fisheries and Poverty – towards Poverty Reduction through Sustainable Fisheries: Emerging Policy and Governance Issues in Southeast Asia (10-11 Apr 2007, Makati, Philippines)
- Policy Workshop on Asian Economic Renaissance: Challenges and Consequences on Agriculture, Food Security and Poverty (19-20 Mar 2007, Chiang Mai, Thailand)
- Pathways to Agricultural and Rural Development: Intellectual Property Rights and Implications (30-31 May 2006, Makati, Philippines)
- Conference Workshop – Toward a Regional Cooperation on Biodiversity Research for Development (28-29 Nov 2005, Manila, Philippines)

### **Policy Roundtables**

Each year from 2004 to 2016, Cambodia was part of SEARCA's policy roundtable series, joining policymakers and rural development practitioners from Lao PDR, Myanmar, Vietnam, the Philippines, and other Asian countries to exchange and discuss collaborative strategies and policy instruments to address emerging challenges facing the agriculture and rural sectors. All the policy roundtable meetings from 2006 to 2011 were funded by Korea FAO. The third of these roundtable meetings was held in Siem Reap, Cambodia in April 2006. It focused on "Shoring and Sharing Capacities to Improve Agriculture and Competitiveness of Transition Countries in Southeast Asia." The 10th roundtable meeting was held in Phnom Penh, Cambodia, with the Ministry of Agriculture, Fisheries and Forestry as local partner.

In November 2013, SEARCA provided technical assistance to Cambodia's Ministry of Rural Development (MRD) in the conduct of a stakeholder consultation workshop in Phnom Penh. Support for the workshop was SEARCA's initial response to MRD's request for technical assistance in the crafting of the Rural Entrepreneurship Development Program (REDP) for Cambodia. At the outset, MRD intends to review its current rural enterprises development and management, including policies, regulations, systems, management, financing, partnerships, and institutional mechanisms. Dr. Pheak Sothea, Director of MRD's Department of Rural Economic Development and a SEARCA alumnus, coordinated with SEARCA for this initiative.

### **► 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.

The knowledge platform 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, which support the Community of Practice (CoP). 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 harvesting their knowledge products through the Applied Knowledge Resources Unit (AKRU). 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, the 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. One of the significant developments for the knowledge platform this year is its integration into the SEARCA Consortium for Agricultural Development, Research, and Extension (CADRE), where it is envisioned to serve as the Knowledge Management (KM) arm of the Research Consortium. The knowledge platform will continue to be client-driven as it caters to the information needs of external stakeholders. Its content will also be designed to stir discussions in the CoP. Regular activities (e.g., an online forum on a certain timely/relevant topic) will also be conducted to keep the CoP active and engaging.

As the KM component of CADRE, the AFNR Knowledge Platform aims to broaden the CoP (and Interest) through a culture of knowledge-sharing, exchange, and engagement. Moving forward, the knowledge platform will advocate D4A (Data for All) that supports data inclusivity access through the development and provision of agricultural data and statistics tools.

## 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:

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

### ► PROJECT DEVELOPMENT, MONITORING AND EVALUATION

**Objective:** implement value-driven programs, projects, activities upholding SEARCA brand

EIGD prioritizes innovative programs, projects, and training initiatives, emphasizing diversity across various fields with a regional and subregional focus on agricultural and rural development (ARD) in collaboration with various organizations with same visions in mind.

### **SEARCA-initiated projects**

Aligned with its commitment to fostering innovative agricultural solutions, SEARCA undertakes projects that aim to enhance agricultural knowledge and practices while safeguarding the environment.

### **SEARCA Carbon Footprint**

To strengthen its commitment and even showcase its efforts and contribution in addressing global challenges, particularly climate change, towards a more sustainable future through the SDGs, this project aims to assess the carbon footprint of SEARCA through life cycle assessment (LCA) following ISO 14044 – LCA requirements and guideline. With the results of the initial carbon emission assessment reaching to 628.93 MT CO<sub>2e</sub>, the SEARCA is committed to intensifying its initiative climate change mitigation.

Through this project, the carbon footprint for FY 2022-2023, which served as the baseline year, was calculated. In total, for Fiscal Year 2022-2023, the Center has an annual emission of metric tons of 628.93 MT CO<sub>2</sub>e, bulk of which (54%) came from electricity consumption. This brings the emission intensity in terms of per employee basis at 6.76 MT CO<sub>2</sub>e/employee-year, which is lower than the global average value. Finally, an excel-based calculator was developed to track the carbon footprint of the Center for the succeeding fiscal year. This study is consistent and will intensify the initiative of SEARCA in contributing to climate change mitigation through its program on “Web-based Integrated Spatial Engine and Smart Ecosystem (WISE) Rice-based Carbon Farming.”

### **SEARCA Carbon Farming Program.**

SEARCA conducted a scoping study to analyze the current landscape, methodologies, and approach of low-carbon emission farming and the carbon credit market in Southeast Asia. This involved a series of interviews with experts, private companies, non-government organizations (NGOs), and farmers with existing initiatives on carbon farming or carbon emission reduction in agriculture from Cambodia, Philippines, Thailand, and Vietnam. The gaps and opportunities identified served as basis in formulating strategies and initiatives for a robust and sustainable approach to carbon farming and trading for the agricultural sector in the region.



Interviews with various organizations from Cambodia, Philippines, Thailand, and Vietnam.

Through this program, it is recommended to develop a comprehensive business model that encompasses the financial, operational, and regulatory dimensions of the carbon trading scheme. This will enable a structured approach for implementing and scaling carbon trading initiatives and serve as a practical guide for stakeholders to understand economic benefits and logistical requirements of participating in this market.

### **SEARCA Platform for Attaining Agri 4.0 Collaboration and Engagement (SPACE)**

SPACE is a virtual community designed to foster collaboration and innovation among experts from academia, industry, government, and local communities. The platform connects professionals through an interactive database and open calls for collaboration, creating limitless opportunities for cooperative ventures in agricultural technology and sustainable development.

In a recent outreach initiative, 60 emails were sent to a carefully curated list of experts, inviting them to join SPACE’s growing pool of professionals. Over 25 experts, representing a diverse range of fields, have already expressed interest in joining this dynamic network. By becoming part of SPACE, these experts are contributing to a vibrant ecosystem of knowledge exchange and partnerships that seek to revolutionize agriculture across Southeast Asia.

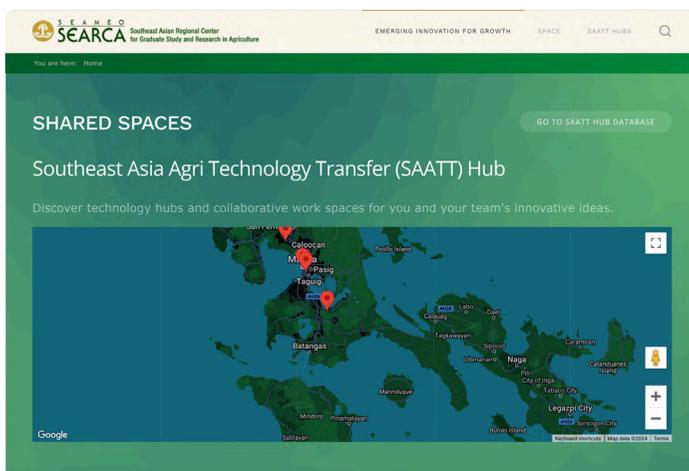
## Connecting scholars, businessmen, policymakers, and local communities TOWARDS INCLUSIVE GROWTH



The SPACE platform is now accessible via <https://space.searca.org/> With the participation of leading researchers, technology innovators, policymakers, and community leaders, the platform offers a unique space where cutting-edge ideas and practices can be shared to accelerate the adoption of Agri 4.0 solutions. Through its expert pool, SPACE facilitates collaborations that address key challenges in agriculture, from increasing productivity and food security to implementing sustainable practices and advanced technologies.

### Southeast Asia Agri-Technology Transfer (SAATT)

The creation and development of the Southeast Asian Agri-Tech Transfer (SAATT) Hub website hosted by SEARCA shall establish SEARCA as a champion and enabler in the agri-tech transfer landscape. The SAATT Hub shall be SEARCA's contribution to the aggressive brokerage of already existing or upcoming innovations in agriculture by serving as the virtual central hub where agri-based and agri-related technology transfer institutions and stakeholders from the academe, industry, and government could promote and showcase innovative products and



SAATT webpage available at <https://saatt.searca.org/>

agri-technologies. The SAATT Hub shall also serve as a platform for agricultural cooperatives, farmers, and farming families in the region to gain access to SEARCA's IP and tech transfer assets, modern agri-technologies, and disruptive solutions to transform mindsets and agricultural systems ushering Agri 4.0.

After its integration at the SEARCA website in June 2024, more than 25 of the invited experts confirmed their participation and interest in the SPACE platform. With this, 12 institutions across Southeast Asia also agreed to be part of SEARCA's network of Tech Hubs under SAATT.

In Cambodia, the Center of Excellence on Sustainable Agricultural Intensification and Nutrition, Impact Hub Phnom Penh expressed their interest to be included in SAATT.

## ► KNOWLEDGE AND TECHNOLOGY TRANSFER

**Objective:** Enhance Partnership and leadership in priority areas and emerging concerns

### **Farm-level technology transfer: Automated Calamansi Sorter (ACS)**

Under EIGD's Knowledge and Tech Transfer initiative is the facilitation of the adoption and transfer of emerging and innovative agri-tech innovations and linkages. SEARCA promotes the adoption of innovative agri-tech solutions at the farm level to enhance agricultural productivity and sustainability. Through partnerships with academic and research institutions, SEARCA facilitates the development and dissemination of technologies that address specific challenges faced by farmers. This initiative focuses on practical solutions that improve efficiency and profitability at the farm level, ensuring that innovations are accessible and beneficial to smallholder farmers across the region.

### **Digital Agriculture Platform**

SEARCA is modernizing agriculture through digital platforms that connect farmers directly with markets, ensuring fair trade and improved livelihoods. These platforms leverage technology to streamline the supply chain from farm to fork, benefiting both farmers and consumers. In an increasingly digital world, SEARCA's Digital Agriculture Platform bridges the gap between farmers and markets, enabling smallholder farmers to thrive in a competitive landscape. By integrating technology into traditional farming practices, SEARCA is helping to secure a sustainable and profitable future for agriculture in the region.

### **Agri-robotics activities**

SEARCA is dedicated to bringing about agricultural transformation through the adoption of a new concept of agriculture, Agri 4.0, redefined by modern technologies, processes, and dynamics. Moreover, SEARCA is committed to the development of the next generation of agriculture leaders and professionals.

#### *Development and Piloting of Agri-Robotics Module*

Envisioning to accelerate transformation to Agriculture 4.0 by nurturing innovations, SEARCA invests in empowering and equipping the youth and by developing and making innovative programs available and accessible to spark their interest in agriculture through new and creative approaches to complex problems in food production.

One way of doing this is by building the capacities of school teachers and equipping them with resources that they can use to integrate Agriculture 4.0 in their lessons under the K-12 curriculum.

### **Agri-mechanization through Tractor Development**

SEARCA is advancing agricultural mechanization by promoting open systems manufacturing, which allows for the customization and scaling of farming equipment to meet the specific needs of smallholder farmers. This initiative focuses on developing and deploying innovative, locally adaptable machinery to enhance agricultural productivity. Empowering farmers with the right tools is essential for sustainable agricultural growth. Through its agri-mechanization initiative, SEARCA is collaborating with global and local partners to bring innovative, open-source machinery to the fields, tailored to the unique needs of smallholder farmers in the region.

Over the years, SEARCA has actively partnered with academic institutions to implement participatory research aimed at transferring valuable knowledge and technology to farming communities. In Cambodia, SEARCA collaborated with the Royal University of Agriculture (RUA), specifically its Faculty of Agricultural Biosystems Engineering, to explore open system machinery designs. This partnership led to the development of a vegetable transplanter designed to assist greenhouse farmers with their transplanting activities. A knowledge-sharing event was held in Takeo province, where the machine was showcased to farmers, allowing them to provide valuable insights and feedback.

In Kampong Thom, another innovative machine was developed, inspired by an introductory workshop facilitated by SEARCA and RUA. Through the ingenuity of local farmers and manufacturers, a modified tractor was fabricated, intended for use in fertigation for rice and sugar cane plantations in the province. This collaborative effort highlights SEARCA's commitment to fostering practical solutions that address the unique needs of farmers.

## **► OPEN INNOVATION AND AGRICULTURE INCUBATION**

### **Grants for Research Towards Agricultural Innovative Solutions (GRAINS)**

GRAINS is a SEARCA program started in 2020 supporting agri-entrepreneurial minds by providing short-term starter funds to innovative agricultural concepts, prototypes, and ventures, supporting sustainable agriculture and rural development across Southeast Asia. By 2023, GRAINS supported 25 total projects hailing from Indonesia, Philippines, Malaysia, Thailand, and Myanmar.

### **Open Innovation and Knowledge Exchange**

By facilitating two open innovation and knowledge exchanges in 2023, EIGD institutionalized partnership and collaboration among parties towards a synergistic innovation ecosystem and knowledge exchange and strengthened innovative and entrepreneurial mindsets.

The [Southeast Asia Agri-Innovation Forum](#) was a hybrid online and offsite event that showcased multi-country projects from new grantees funded by GRAINS. Chosen from hundreds of applications, these projects aim to tackle critical challenges faced by farming communities and drive agricultural transformation across Southeast Asia.

Grantees from Indonesia, Malaysia, Myanmar, the Philippines, and Thailand presented their project concepts, inviting feedback and insights from our panel of experts.

**AgriTech Field Day.** Farmers' Exchange Program with GRAINS startup grantees. The onsite event, organized by SEARCA in collaboration with the Center of Excellence on Sustainable Agricultural Intensification and Nutrition (CE SAIN) in Cambodia, brought together farmer leaders and agritech startups in Cambodia and Europe. Startups supported by Impact Hub Phnom Penh, namely ADSA, DamDoh App, and Chalatex, and other innovators such as S.E.C. Solar Energy and SpaceCrop Technologies – Hungary, explored potential synergies within the Southeast Asian and European innovation ecosystem. The event provided a chance to share technologies and innovations, including demonstrations at the CESAIN Agricultural Technology Park, for the benefit of farmers and rural communities.

**Modern Agri-Education at Learning Hubs.** To facilitate the exchange and dissemination of modern agricultural knowledge among youth, the SEARCA Hub for Agricultural and Rural Innovation for the Next Generation (SHARING) webpage was launched in 2023. The SHARING website features information about the onsite SHARING museum and the SHARING Café, which can host activities such as ideation sessions, hands-on learning, and internship programs focused on agrobotics.



SEARCA Center Director Glenn B. Gregorio toured the visitors from Kaoshiung Medical University to the SHARING Museum.

These modernized learning approach and learning events focused on skill development and capacity building for the youth by providing and equipping the participants with practical knowledge and skills in technologies and innovation in agriculture. Such activities also exposed the youth to career opportunities and income-generating activities in agricultural technology, further igniting their interest in the critical fields of food security.

Through these learning events, SEARCA strengthened its impact on stakeholders and further contributed to the advancement of sustainable agriculture and rural development.

### **Agripreneurship and startup acceleration**

To foster the growth of startups in the agriculture sector, we launched acceleration projects in collaboration with industry partners and business incubators, starting with the Philippines and Cambodia. Our goal is to mentor agriculture-focused startups throughout the region, helping them advance to the next stage of growth and ultimately benefiting farmers and farming communities across Southeast Asia.

**ACCELERATING ACT.** This ongoing “Accelerating Agri-Businesses in Cambodia through Subsidized Technical Assistance Program (ACCELERATING ACT)” was conceptualized to help

agri-entrepreneurs and startups enter their new level of development by providing tailored, hands-on support to address their specific challenges.

In the pilot phase, four agri-based startups were selected for support: Agricultural Digital Solution Agent (ADSA) is an e-commerce platform that connects businesses, promotes safe agricultural products, and allows farmers and suppliers to create profiles and sell their products directly on the app. PhallChangrit enhances the cricket value chain by turning cassava waste into low-cost cricket feed and creating nutritious cricket-based products. Preksvay Farm works with smallholder farmers, especially women, helping them develop added livelihoods, and is now interested to venture into vermicomposting. Hattha Neary supports Cambodian women and local farmers by sourcing top harvests from small-scale farms and packaging them with eco-friendly, handmade materials.



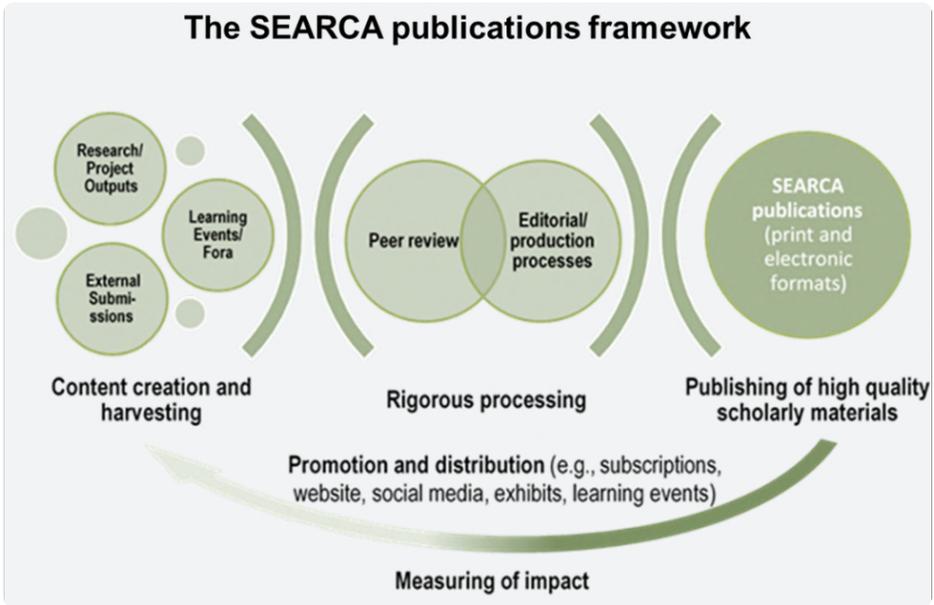
Impact Hub Phnom Penh engages with farmers and agri-startups to strengthen the innovation ecosystem.

### Unveiled Impact Stories of Innovation

To continue disseminating stories of agri-innovation from projects funded by SEARCA GRAINS, three new video packages were created to inspire the adoption of best practices and to draw lessons toward successful project implementation. A total of seven stories are accessible through SEARCA website ([www.searca.org/grains#stories](http://www.searca.org/grains#stories)) and social media platforms such as YouTube.

Among which is the Bioplastic Shifts Agrowaste into Sustainable Solution that presents scientists at the University of San Carlos (USC) using discarded shrimp shells to create bioplastic, a biodegradable and low-carbon alternative to combat plastic pollution. This enables redirection of agro-industrial waste from landfills to a circular economy. The story was also repackaged by SEARCA and USC Cebu into a one-minute 'Science in Shorts' entry titled "Unusually sustainable - bioplastics from shrimp shells plus mango waste!" The video premiered at the Curious2024 - Future Insight conference in Mainz, Germany, and garnered the "Top 10 Nature Awards" out of 250 videos submitted by researchers across the world.

# KNOWLEDGE DISSEMINATION



## ► 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 September 2024, 23 titles either focused on Cambodia or included it in its country of coverage have been published by SEARCA. These include monographs (3), discussion paper series (1), briefs and notes (4), proceedings (2), and journal articles (13).

### **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. Through 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:

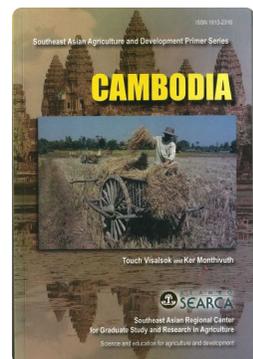
- Provide information on agroforestry practices, concepts, programs, policies, training, education and research, industry, issues/challenges, impacts and other relevant aspects.
- Draw an outlook of agroforestry into the future towards a resilient Southeast Asian region.
- Have an accompanying monitoring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

SEARCA published a primer on Cambodia in 2010 as part of its Southeast Asian Agriculture and Development Primer (SAADP) Series. Each volume of the series presents the featured Southeast

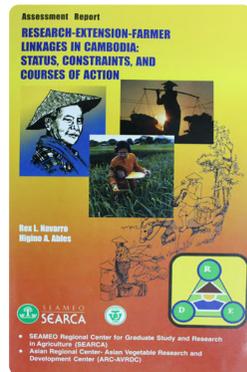
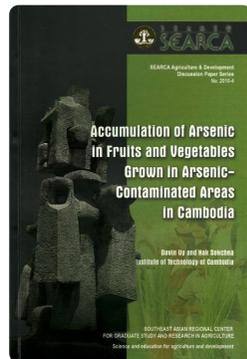


Asian country's state of agriculture in a holistic, yet concise form. It shows the institutions, structures, policies, and other areas affecting the sector's performance over the past three decades.

The Cambodia volume mainly focused on crops and livestock and their importance and contribution to the country's economy. The primer authors are Dr. Touch Visalsok, Rector of the University of Battambang (UBB) and Dr. Ker Monthivuth, Acting Director of the Department of Administration, Planning, Accounting and International Cooperation, General Directorate of Agriculture, Ministry of Agriculture, Forestry and Fisheries.

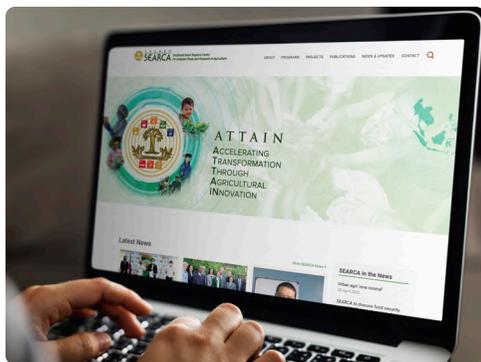
The second edition of the SAADP on Cambodia (2016) focuses on Policy Reforms and Institutional Innovations in Agriculture: Experiences, Impacts and Lessons, which takes off from the results of a regional workshop convened by SEARCA to take stock of the current situation of the agriculture sector in Southeast Asia, review current institutional and policy regimes of countries in the region, and determine how they affected agricultural productivity and competitiveness vis-à-vis government responses.

The second edition is authored by Lonn Pichdara, Research Associate, Cambodia Development Resource Institute; Mey Kalyan, Senior Advisor to the Supreme National Economic Council; and Dr. Touch Visalsok, Undersecretary of State, Ministry of Education, Youth, and Sport, Cambodia.



## ► 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 2024, a total of 53,683 publications have been downloaded from [searca.org](http://searca.org), SEARCA's official

website. Over 28,000 people from 169 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 2024, 238 downloads of SEARCA publications have been made by Cambodians.

## ► LIBRARY AND ARCHIVES

The SEARCA library, which houses a collection of over 16,300 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 web links 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. Over 7,400 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

Cambodia is currently represented in the SEARCA Governing Board by Dr. Huon Thavrak, Vice-Rector, Royal University of Agriculture, Cambodia. The SEARCA Governing Board is the highest policymaking body composed of representatives of the 11 SEAMEO member countries.

At present, the SEARCA Center 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.