



# INDONESIA 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. Indonesia is one of the founding member countries of SEAMEO, which was established in 1965.

SEARCA's objectives are to:

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

## EDUCATION AND COLLECTIVE LEARNING



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

### ■ GRADUATE SCHOLARSHIP AND INSTITUTIONAL DEVELOPMENT

#### ► GRADUATE SCHOLARSHIP PROGRAM

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

#### **Full Master's and PhD Scholarships**

So far, SEARCA has awarded 368 full graduate scholarships (204 MS, 164 PhD) to Indonesians. These include grants for 52 Indonesians whose graduate studies were supported by Indonesia's Directorate General of Higher Education–Higher Education Project (HEP), which was implemented by SEARCA. To date, 314 of the graduate programs had been completed (186 MS, 128 PhD).



### **PhD Research Scholarships**

A total of 20 Indonesians were awarded SEARCA's PhD Research Scholarship, which was launched in 2005. It provides financial support to qualified PhD students whose research studies are relevant to the priority thrusts of SEARCA. Ten of the Indonesian PhD research scholars completed their doctoral programs.

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

SEARCA and UPM initiated a joint graduate scholarship program in 2012. Since then, four Indonesians pursuing PhD degrees received UPM-SEARCA scholarship.

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

In July 2020, the Tokyo University of Agriculture (Tokyo NODAI) and SEARCA provided a three-year scholarship to Mr. Muhammad Reza Cordova of the Indonesian Institute of Sciences, Indonesia to conduct his dissertation titled "Study on Macro and Microplastics Debris in Indonesian Water: Current Condition and Problem." He obtained his Dissertation Doctorate in Aquatic Bioscience at Tokyo NODAI in March 2021. To date, total of 3 Indonesians (1 new, 1 ongoing, 1 alumni) received NODAI-SEARCA scholarship.

### **Agropolis Fondation-SEARCA Joint Scholarship Program**

The Agropolis Fondation (AF) of France and SEARCA offer a co-funded doctoral fellowship under the call for "Innovative Co-Learning for Agriculture-Based Solutions." The program aims to support innovative, cross-sectoral, and interdisciplinary training or learning projects that promote agro-ecological transition through innovative approaches, tools, teams, and networks.

The scholarship program enables scholars to spend 18 months in France and 18 months in one of the Southeast Asian University Consortium for Graduate Education in Agriculture and Natural Resources (UC) member institutions. Academic supervision will be jointly done by a French scientist from one of the AF members and a Southeast Asian scientist from one of the five founding UC members. Successful completion of the program will grant the scholar a dual/ double degree under a co-tutelle agreement. Currently, two Indonesian scholars are pursuing PhD studies at IPB University and Universitas Gadjah Mada (UGM) in Indonesia.

### **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 four Indonesian nationals.

### **Sejong-SEARCA Joint Scholarship Program**

The joint scholarship between SEARCA and Sejong University in South Korea aims to increase the capacities of Southeast Asian scientists/researchers in the fields of Integrated Biological



Sciences and Industry (e.g., Plant Breeding and Genetics), Bioresource Engineering (e.g., Plant pathology, QTL mapping, Tissue culture). One Indonesian has been granted the scholarship for AY 2023/2024 to pursue PhD in Bioresources Engineering.

### ► OUTSTANDING MS AND PHD SEARCA SCHOLARS

SEARCA awarded for the first time Outstanding MS and PhD SEARCA Scholars in FY 2020/2021. The first two awardees were from Indonesia:

- Mr. Bayu Rizky Pratama, Double degree in MS in Agricultural and Resource Economics (KU) and MS in Agricultural Management (University of Montpellier SupAgro)
- Mr. Muhammad Reza Cordova, PhD in Aquatic Bioscience, Tokyo NODAI



These scholars were evaluated according to: i) academic grade point average; ii) duration of studies in the degree program; iii) papers presented in international conferences; iv) publications in scientific journals; v) academic awards or recognitions received and; vi) other curricular activities or engagements.

### ► OUTSTANDING SEARCA SCHOLAR FY 2022-2023

Dr. Vina Eka Aristya, who completed her PhD in Agricultural Sciences from the Universitas Gadjah Mada was recognized as the Outstanding SEARCA Scholar for Fiscal Year 2022-2023. The award recognizes Vina's academic excellence, including seven publications in scientific journals (two indexed in Scopus with one in a Q1-indexed journal), numerous papers presented in international conferences and garnering Best Presenter awards in two of these occasions, and other co-curricular engagements.



Special Citation was also awarded to Dr. Rini Widyastuti, PhD Veterinary Medicine at IPB University, for academic excellence and completing her PhD degree on time.

### ► SEARCA 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. Indonesian scholars who served as Graduate Seminar speakers are:

- Dr. Muhammad Reza Cordova (PhD in Aquatic Bioscience, Tokyo University of Agriculture), "Macro and Microplastics Debris in Indonesian Water: Current Condition and Problem," 24 September 2021 via Zoom
- Mr. Bayu Rizky Pratama (Double Master's degrees in Agricultural and Resources Economics, Kasetsart University and Agricultural Management, Montpellier SupAgro in France), "Analysis of the Factors Determining Farmers Adoption and Strategies for the Development of Single Origin Processing Scheme by Coffee Farmers," 15 January 2021 via Zoom.

### ► GSID CONVERSATIONS

The GSID Conversations is as an avenue for scholars to discuss with experts from different fields regarding complementary topics in agriculture and rural development. The activity will also share the experience and insights of experts on translating knowledge and skills into meaningful contributions to society.

Speaker: Ms. Sabrina Mustopo, Founder of Krakakoa Chocolate, Indonesia

Topic: Sweet Stories: Empowering Local, Cacao Farmers through Innovative Food Production Systems

Date: 16 April 2021 via Zoom

Speaker: Dr. Divo Dharma Silalahi, SEARCA Alumnus and Senior Researcher – Data Intelligence Analytic Department Head of SMART Research Institute, Indonesia

Topic: From Campus to Career: The Journey of a SEARCA Scholar

Date: 28 April 2023 via SOLVE Platform

**GSID CONVERSATIONS**  
28 April 2023 | 10:30 A.M. (GMT +8:00)

*From Campus to Career: The Journey of a SEARCA Scholar*

**Presenter:**  
**Divo Dharma Silalahi, PhD**  
Senior Researcher -  
Data Intelligence and Analytic Dept. Head  
SMART Research Institute -  
PT Sinar Mas Agri Resources and Technology  
(SMART) Tbk, Indonesia  
and SEARCA Alumni

**Exclusively for SEARCA scholars**  
Registration link: <https://bit.ly/SEARCAscholarjourney>

**SEARCA** **SOLVE** SEARCA Online Learning and Virtual Engagements  
Highlighting actions on agricultural and rural development

### ► REGIONAL SEARCA ALUMNI ASSOCIATION (RSAA)

Upon graduation, SEARCA scholars automatically become members of RSAA, an organization consisting of all SEARCA Graduate Scholarship Alumni. The association was organized through a series of in-country planning workshops to embody the ideals and aspirations of SEARCA. The current RSAA President effective 2022 is a SEARCA alumnus from Indonesia, Dr. Asdi Agustar, Professor, Andalas University. He served as RSAA Vice-President from 2016 to 2022. As RSAA President, he gave a closing message and inducted all new alumni to the RSAA during the Testimonial Program held on 4 August 2022.

SEARCA, in partnership with the Regional SEARCA Alumni Association (RSAA), organized the Scholars' Conference 2023 on "Advancing Agricultural Research for Improved Food Security." Twenty-eight scholars presented their research across six parallel sessions from March 14-15, 2023, via the SOLVE Platform. The two-day conference is the Center's way to support their



academic achievements and recognize their capacity to produce quality research that has a great impact on agriculture and rural development.

Two Indonesian SEARCA Alumni served as Plenary and Parallel speakers:

PLENARY SPEAKER

**Prof. Dr. Ir. Musliar Kasim**

Rector of Baiturrahman University, Indonesia  
and Outstanding SEARCA Scholarship Alumni  
Awardee

PARALLEL SPEAKER

*Session on Animal Science*

**Prof. Dr. Ir. Bambang Suwignyo**

Department of Animal Nutrition and Feed Science  
Universitas Gadjah Mada  
Yogyakarta, Indonesia

**Indonesian SEARCA Alumni Association**

The Indonesian SEARCA Fellows Association (ISFA) is composed of SEARCA graduate alumni from Indonesia. ISFA is currently headed by Dr. Asdi Agustar.

In August 2016, with support from SEARCA, ISFA and the University of Lampung (UNILA) jointly organized an International Seminar on Improving Food Security: The Challenges for Enhancing Resilience to Climate Change. It was attended by more than a hundred students and experts from seven countries.

In December 2010, ISFA also convened a National Conference on Agricultural Education for Better Farming and Better Living at the University of Diponegoro (UNDIP) in Semarang. Indonesian academics and experts on agricultural and rural development participated in the conference, which was conducted with support from SEARCA and UNDIP.



## Outstanding Searca Scholarship Alumni (OSSA)

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



Dr. Musliar Kasim



Dr. Ir. Mochammad Maksum

Prof. Dr. Musliar Kasim and Prof. Dr. Ir. Mochammad Maksum were honored for having personified SEARCA's values and philosophy, their professional achievements, and the impacts they have created in their respective fields. Dr. Musliar was cited for his achievements in public policy and governance, including the crafting and implementation of Indonesia's Curriculum 2013 (C-13), which covers the requisite competency knowledge, skills, and attitudes in an integrated manner such that the students will be capable of contributing to society, the nation, and world civilization. Also under his leadership as Vice Minister, the ministry has renovated tens of thousands of schools.

Dr. Maksum was awarded for his advocacy to help the rural poor, which is centered on access to justice; inclusive development at the local level; and an understanding of a socio-cultural system that appreciates different religions, social practices, and indigenous technology. He does this wearing many hats, including Professor at Universitas Gadjah Mada (UGM), Vice General Chairman of the Central Board of Nahdlatul Ulama (NU), and Rector of Universitas Nahdlatul Ulama which was recently established by NU, the largest religious organization in Indonesia.

## Postdoctoral Fellowships

In 2003, SEARCA and Indonesia's Directorate General of Higher Education–Higher Education Project implemented a Postdoctoral Fellowship Project that enabled five Indonesians to serve as postdoctoral fellows for three months at universities in Australia and Germany. Four Indonesian postdoctoral fellows served at the University of Queensland in Australia and one at Georg-August University of Göttingen in Germany. During their fellowship, they were able to do small research studies, attend seminars and enhancement courses, and serve as visiting lecturers.

## ► REGIONAL PROFESSORIAL CHAIR GRANTS

Since AY 2011-2012, the SEARCA Regional Professorial Chair Grant has recognized the contribution of institutions and individuals in the fields of agriculture and related sciences, thereby contributing to ARD in Southeast Asia through instruction, research, innovation, and extension work.

Faculty members of Institut Pertanian Bogor (IPB) and Universitas Brawijaya (UB) were awarded the professorial chair:

- Dr. Anuraga Jayanegara of IPB in the field of Animal Nutrition and Feed Technology, AY 2017/2018
- Dr. Teti Estiasih of UB in the field of Food Science and Technology, AY 2019/2020
- Dr. Khaswar Syamsu of IPB University in the field of Agricultural Technology and Innovation, AY2021/2022

## ► UNIVERSITY CONSORTIUM

SEARCA initiated the University Consortium for Graduate Education in Agriculture and Natural Resources (UC) in 1989 to link strong universities in Southeast Asia and outside the region. Two Indonesian universities—IPB University in Bogor and Universitas Gadjah Mada (UGM) in Yogyakarta—are among UC’s five founding members. In 2016, Universitas Brawijaya (UB) in Malang joined the UC as an affiliate member and became a regular member in 2019.

So far, at least 268 Indonesians have participated in UC activities:

- 31 graduate exchange students
- 132 thesis grantees
- 84 exchange faculties
- 4 research fellows
- 14 professorial chair holders
- 3 seed fund for collaborative research grantee

Since UC was established, IPB University and UGM have also served as study posts of SEARCA scholars.

Universitas Brawijaya (UB) organized the 6th UC Summer School, in collaboration with L’Institut Agro of France, from 13-27 November 2022 at the Banyuwangi Regency and Malang, Indonesia. With the theme “Crop Diversification, Mixed Cropping, and Risk Management in Smallholders’ Agriculture in the Context of Climate Change,” the course aimed for the post-graduate participants to collectively build a framework for the assessment of mixed cropping and risk evaluation in smallholders’ agriculture; develop their capacities on integrated sustainability of production systems through active learning and examine how strategic choices and the cropping systems adopted at the farm/household level evolve and can uphold their performance in the context of changes related to climate or other regulations.

UB also hosted the 35th UC Executive Board Meeting on 25-26 November 2022.

UGM is SEARCA’s partner in implementing the study titled “Implications of AEC and Trade and Investments on Regional Food Security” under Umbrella Program on Food and Nutrition Security in Southeast Asia jointly developed by SEARCA, the UC, and other partner institutions. The first phase of the five-phase project (May 2015-May 2020) covers Indonesia, Malaysia, the Philippines, and Thailand.

UGM successfully hosted the annual UC activities, including the UC Summer School in 2017 on “Sustainability Transitions Summer School: Integrated Forestry Farming System: A Transition to Food Security in a Changing Climate” and the 2020 UC Graduate Forum on “Resilient Food and Agricultural System for Accelerating Economic Recovery: Strategy and Implementation.”

UGM was the first host of the UC Graduate Forum to conduct the event online at the onset of the pandemic.

UGM likewise played an important role in co-organizing the 2018 and 2019 UC Summer Schools as part of the Master of Science in Food Security and Climate Change (MS FSCC) project funded by the European Commission's ERASMUS + Capacity Building for Higher Education from 2016 to 2019.

On the other hand, IPB University was SEARCA's partner in implementing the study titled "Indigenous Crops - Food Production, Food Safety and Process Development of Indigenous Crops to Strengthen Food and Nutrition Security," which was also under the aforementioned SEARCA-UC umbrella program. Implemented from January 2015 to January 2016, the study also covered Indonesia, Malaysia, the Philippines, and Thailand. IPB University hosted the 2019 UC Graduate Forum on "Sustainable and Smart Agriculture in the Tropical Region: Concept and Implementation."

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

- International Summer Course Program on Tropical Agricultural Environment toward Regional Sustainability organized by IPB University and Ibaraki University in Bogor, Indonesia in 2022.
- International Training on Cage-Free Innovation and Welfare Hub organized by Universitas Gadjah Mada, Yogyakarta, Indonesia in 2023.
- One month to one semester mobilities at Universitas Gadjah Mada and IPB University.

## ■ TRAINING FOR DEVELOPMENT

Since SEARCA began its Short-term Training Program in 1970, there were 1,356 Indonesians who participated in 264 regional and in-country training courses and study tours conducted by SEARCA. The titles of some of these learning events are as follows:

- Southeast Asian Learning Framework on Inclusive, Integrated, and Innovative Public Policy Cycle for Family Farming
- Exposure-workshop on Farm Tourism Practices in Southeast Asia
- Training of Trainors on Scaling Up the School-plus-Home Garden Model in Southeast Asia
- Global Farm Tourism Summit: Managing Climate Risks through Sustainable Farm Tourism
- Fifth Executive Forum on Leadership Excellence in Academe Program for Southeast Asia (LEAP SEA)
- ASEAN 2015: Strengthening the Regional Food Safety System (A Regional Seminar/Workshop)
- International Training-Workshop on Quality Control of Microbial-based Fertilizers
- Forum-Workshop on Economic Instruments
- Applied in Environmental and Natural Resource Management in Southeast Asia
- Risk-based Food Control Programs in Southeast Asia: A Regional Seminar-Workshop
- Executive Forum on Natural Resource Management (NRM): Environmental Economics for Decision-making

- Executive Forum on Leadership Excellence in Academe Program for Southeast Asia (LEAP SEA)
- Executive Forum on NRM: Natural Resources Knowledge Management in Southeast Asia
- Rationalizing and Harmonizing Plant Biotechnology in Southeast Asia: A Learning Forum
- Training Course on Impact Assessment of Anti-Poverty Programs: Focus on Technology and Capacity Development
- Unraveling the Policy Issues and Development Challenges on Biofuels: An Executive Forum Executive Forum on NRM in a Globalizing Asia
- Agricultural Technology and Vocational Teacher's Training Course
- Community Empowerment for Rural Development (CERD) Short-term Overseas Comparative Studies for Indonesian Officials
- Final Dissemination Workshop of the Indonesian Agriculture and Rural Development Strategy
- Advanced Higher Education Administration Development (AHEAD) Training Course
- Resource Management: Private-Public Partnerships and Knowledge Sharing
- Southeast Asia Regional Workshop on Ecotourism Development
- Regional Training Course on Environmentally Sound Management for Sustained Productive Use of Acidic Upland Soils
- Training in Participatory Methods for Upland Agroforestry Systems and Watershed Management in Southeast Asia
- Regional Training Course on Development Strategies and Planning for Farmer's Communities
- Training Course on Strategies for Rural Development
- Regional Training Course on Agribusiness Management
- Regional Training Course on Environmental and Resources Economics
- Regional Training Course on Sustainable Agriculture for the Uplands
- Collaborative In-Service Training Program on Agricultural Extension
- Training Course on Information Management
- Regional Training Course on Commercialization of Research Results
- Regional Training Course on Agri-based Entrepreneurship and Enterprise Development
- International Workshop on Management Information System for Agricultural Research
- International Workshop on Technologies for Sustainable Agriculture on Marginal Uplands in Southeast Asia
- Regional Workshop on Data Management for Rural Development
- Regional Workshop on Agroforestry Research and Development for Southeast Asia
- Regional Training in Social Laboratory
- Regional Training in Technology Transfer Management
- Management Training and Case Writing Workshop for Agricultural Research Managers

Twenty-eight of the 262 learning events were held in Indonesia. These events were organized in cooperation with government organizations and agencies (e.g., Ministry of Agriculture, Bank Rakyat), higher education institutions (e.g., Institut Pertanian Bogor, Universitas Brawijaya, Hasanuddin University, Haluoleo University, Universitas Gadjah Mada), and SEAMEO sister Centers (e.g., SEAMEO BIOTROP, SEAMOLEC). Moreover, SEARCA had conducted training courses and study tours exclusively for Indonesians.



Indonesia ladies at the 2016 SEARCA-IFS Mentoring Workshop for Collaborative Research Grants: (from left) Dr. Felycia Edi Soetaredjo of Widya Mandaya Catholic University Surabaya, Mrs. Dian Afriyanti of Universitas Batanghari, and Dr. Deffi Ayu Puspito Sari of Universitas Bakrie.

### **Institutional Cooperation in Training for Development**

In 2020 and 2021, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)-Jakarta signed letters of agreement (LOAs) with SEARCA to organize and implement two batches of the ASEAN Climate Leadership Programme (ACLPL), which were both offered on virtual platforms. The ACLPL was supported by the project Climate Smart Land Use (CSLU) in ASEAN with funding from the German Federal Ministry for Economic Cooperation and Development implemented by the GIZ. ACLPL 2020 explored the role of land management for food security and climate change and had 27 participants from nine ASEAN Member States. ACLPL 2021 gathered 24 representatives from eight ASEAN member states, who embarked on a “leadership journey” that provided them with an avenue to strengthen their leadership skills, especially in the context of addressing the impacts of climate change on the food, agriculture, and forestry sector in the region.

In 2014, SEARCA entered into a Memorandum of Agreement with the Universitas Brawijaya to jointly organize and implement the 5th Executive Forum on Leadership Excellence in Academe Program for Southeast Asia (LEAP SEA). This learning event was held in the campus of Universitas Brawijaya in Malang, Indonesia on 20-24 January 2014.

In 2010, SEARCA and the SEAMEO Regional Center for Tropical Biology (BIOTROP) in Bogor, Indonesia, conducted the 2nd LEAP SEA. Twenty-two participants from eight SEAMEO member countries completed the program.

In 2004, the Ministry of Home Affairs (MOHA) of Indonesia, through its Directorate General of Community and Village Empowerment (DGCVE), contracted SEARCA to implement a series of Short-term Overseas Comparative Studies (SOCS). These comparative studies fell under the Capacity Building for Decentralized Development Planning Component of the



MOHA's Community Empowerment for Rural Development (CERD) Project. A total of 90 officials from MOA, divided into three batches, underwent the SOCS, which aimed to widen the participants' horizons by observing and closely studying various ways of decentralized development activities, community development planning, financial intermediation services and community-based savings and loan organization formation, and micro-enterprise development. The participants visited Vietnam and Thailand (Batch 1), Malaysia and Indonesia (Batch 2), and the Philippines and People's Republic of China (Batch 3).



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 Indonesia:

#### **FarmerTalk: Development of Information, Education, and Communication (IEC) Materials Highlighting Biotech Contributions to Farmer Success**

Committed to the goal of sharing knowledge to elevate the quality of life of agricultural families through sustainable and resilient livelihoods and access to modern networks and innovative markets, SEARCA and CropLife Asia have partnered to communicate the impacts and contributions of biotech crops through flyers and videos highlighting success stories of farmers in the Philippines, Indonesia, and Vietnam who have experienced first-hand the benefits of using biotech crops. The project featured the scientists who are leading the production of genetically modified (GM) sugarcane as well as early farmer-adaptors of the GM crop in Indonesia.

#### **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. Two case studies were conducted in Indonesia which focused on the Indonesian Village Law and agro-tourism development in Yogyakarta and Bali, respectively, as part of the six country-level case studies conducted. To support the documentation of some case studies and get the viewpoint from farmers' organizations, SEARCA collaborated with the Asian Partnership for the Development of Human Resources in Rural Areas (AsiaDHRRA).

### **Case Study Researches on Public Policies in Asia and the Pacific – Philippines, Indonesia, and Vietnam**

Indonesia was one of the three countries in Asia covered by this International Fund for Agricultural Development (IFAD)-funded project and in collaboration with the Food and Agriculture Organization of the United Nations (FAO). The project provided a comprehensive analysis of the public policy trends related to the promotion and implementation of family farming in the Philippines, Indonesia, and Vietnam. Specifically, the project:

- Assessed existing public policies and programs related to family farming in terms of operations, production, drivers, and challenges across the phases of policy development cycle.
- Determined the gaps, opportunities, and lessons along each stage of the policy cycle to develop context-specific suggestions for improving the policy development process.

The results of the policy studies were used as inputs to the development of a modular program that will contribute to the implementation of the main objective of the UN Decade of Family Farming (UNDF) and serve as a tool for countries to develop public policies for the support of family farming. In particular, the program will contribute to Pillar 1 of the UNDF Global Action Plan (GAP): Develop an enabling policy environment to strengthen family farming.

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

### **Indigenous Crops – Food Production, Food Safety and Process Development of Indigenous Crops to Strengthen Food and Nutrition Security of IPB**

The project was developed to utilize local crops in response to malnutrition in the Southeast Asian region. The project officially started in February 2016 and will run until January 2019, with the IPB as the lead implementing institution.

Project activities are being carried out in partnership with members of the UC. The project focuses initially on developing underutilized local and indigenous crops especially roots and

tuber fortified with protein rich legumes to alleviate the plight of specific population groups experiencing malnutrition in Southeast Asia. Specifically, the project aimed to:

- Define and understand the food pattern, food diversity, food preferences, and eating behavior of the target population(s);
- Develop a suitable product and applicable process technology for intervention such as artificial rice utilizing indigenous and underutilized root or tuber crops fortified with additional nutritional requirements such as legume-derived proteins;
- Assess the impact of intervention products in alleviating nutritional concerns in target population(s); and
- Assess the implementation of technology replication in other regions (among ASEAN members).

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

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

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

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

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

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

Indonesia 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 six projects in Indonesia from 2014 to 2020:**

- Development of a Process to Acquire Mukim Forest Recognition: Preparatory Phase
- Strengthening Multistakeholders Engagement to Accelerate Social Forestry Department
- Linking Forest, Water, and Energy: Assessing Socio-Economic and Environmental Impacts of Forest Management and Micro-hydro Development at the Buffer Zone of a Conservation Area in West Java, Indonesia
- Capacity Assessment for HKM Extension Workers and KPH forest guards
- Developing Environmental Education Program for the Mangrove Forest Based-Ecotourism in Juru Seberang Community Forest in Belitung
- Developing Mangrove Forest Environmental Education Program for the Ecotourism of Juru Seberang Community Forest in Belitung, Indonesia

## **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 Indonesia, 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**

Indonesia 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 Indonesia 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 almost 60 research projects with significant outcomes in Indonesia, including the following:

- ADB TA7189 - Institutional Strengthening for Integrated Water Resources Management in the 6 Cis River Basin Territory (Package E)
- ASEAN Australian Development Cooperation Program (AADCP) Phase II-funded project Strengthening ASEAN Mechanisms for Reducing Emissions from Deforestation and Forest Degradation (REDD Plus)
- TA 3843-INO: Agricultural and Rural Development Strategy Study
- Appraisal of Institutional Mandates of Agribusiness Support in Asia
- Small Grants Programme for Operations to Promote Tropical Forests in Asia (SGPPTF)
- WB Loan 3586-IND: Integrated Pest Management Training Project (IPM/TP)
- Impact Evaluation Study in Indonesia
- Impact Evaluation Study of the Second Agricultural Research Management Project
- Agro-industrial Development Project
- Post Production Application Research Project
- Research Utilization Project
- Gender and Development Program
- Improving Smallholder Farming Systems in Imperata Areas of Southeast Asia: A Bioeconomic Modeling Approach
- Agricultural Information Bank of Asia Program
- Azolla Research and Development Project
- Data Management for Rural Development Project
- Research Management Asia Project
- Agribusiness Project
- Southeast Asia Cooperative Postharvest Research and Development Programme
- Socioeconomic Analysis of Social Laboratory Projects
- Post-Production Systems Management
- Management of Research and Extension Systems Project
- Postharvest Handling of Perishables
- Study on Higher Agricultural Education and Rural Development in Developing Countries in Asia and the Pacific Region
- SEAMEO Pilot Project for Integrated Community-based Human Resource Development
- Cassava Outreach Program for Asia
- Commodity Systems Research in Corn

## ► 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 18 Indonesians received SFRT grants for 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, more than 20 Indonesians have been awarded with 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.

- Conduct original research that relates to genuine problems and that generates fundamental and/or applicable scientific knowledge that can be put into use;
- Contribute to science literacy;
- Communicate their results to the public at large, including scientists, politicians and policy makers, donors and private interest groups;
- Influence science priority setting; and
- Network and collaborate with the global research community to shape research agendas, both local and global.

In partnership with SEARCA, IFS will thus support 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.

### ► **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.



There have been four recipients of the award, including Dr. Sjarifudin Baharsjah, renowned Indonesian economist and former Minister of Agriculture, who received the 2013 Umali Award. Dr. Baharsjah was cited for his significant contributions to agricultural and rural development in Indonesia, particularly his introduction of agribusiness and agro-industry to promote agricultural development in his country. As a requisite of the award, Dr. Baharsjah gave a lecture after the conferment of his award in January 2014. His lecture, which was later published as a monograph, is titled “Dare to Turn Around for Agricultural Success: Farmers as Key Change Agents.”

### ► 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 Indonesia, 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 Indonesia**

SEARCA published a primer on Indonesia in 2007 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.

Dr. Faisal Kasryno, Senior Agricultural Economist and Deputy Chairman of the Indonesia Resilient Agriculture Foundation, and Dr. Ronnie S. Natawidjaja, Director, Center for Agrifood Policy and Agribusiness Studies, Padjadjaran University, Indonesia, authored the primer on Indonesia.



### **Other Publications**

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

- Transforming Pathways: Working with Farmers in Agri-Food Systems Case Studies from Indonesia, Philippines, and Vietnam
- Key Challenges and Best Practices in Watershed Management in Indonesia: The Case of Citarum River Watershed
- Logistics Systems in the Supply Chain of Agricultural Products in Indonesia
- Developing Coral Reef Conservation Zones in the Kangean Archipelago, Indonesia
- Predicting Sustainability of Agroforestry in a Customary Forest (Hutan Marga) in Lampung Province, Indonesia
- The Use of Nano-chitosan as Biofungicide Against *Phytophthora capsici* on Four Chili Cultivars in West Java, Indonesia for Sustainable Agro-industry Applications

Indonesia is also featured along with other countries in 56 publications published by SEARCA.

Meanwhile, 25 articles on Indonesia 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, 13 Indonesians co-authored in 18 other SEARCA publications, including 18 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:

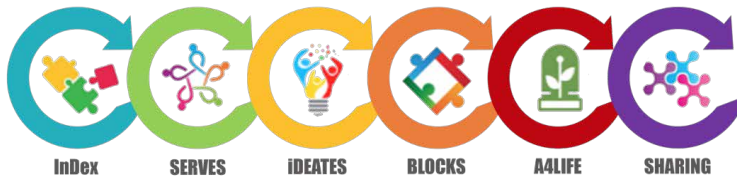
- Agricultural technology development and technology transfer,
- Adaptation and adoption of village-scale relevant technologies,
- Inclusive rural community development
- Local and immediate agribusiness clustering, and
- Gender inclusive and high impact projects.

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.

### ► **SEARCA Grants for Research towards Agricultural Innovative Solutions (GRAINS)**

The SEARCA Grants for Research towards Agricultural Innovative Solutions (GRAINS) was awarded to Penabulu Foundation in 2023 for the project entitled “Strengthening the supply chain and traceability for okra commodity using blockchain-based tracking and traceability tools (DAKOTA) in Grobogan, Central Java.” The DAKOTA tool is a digital platform helping farmers achieve international market standards and fair prices through transparent, unchanging records of the quality control and agricultural practices applied on their commodities. The civil society organization, Penabulu Foundation is adapting DAKOTA, originally designed for spice commodities, to raise the production quality, income, and market reach of 150 okra farmers in Grobogan regency.

### ► **Partnership with Indonesian Agency for Agricultural Research and Development**



Through the efforts of its Emerging Innovation for Growth Department, SEARCA has entered into a five-year agreement with the Indonesian Agency for Agricultural Research and Development (IAARD) during a virtual signing ceremony held 15 April 2022. Under the overall aim of improving the food systems in key agricultural areas in Indonesia, the agreement will focus on an integrative intervention related to food losses and livestock management.



## 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**

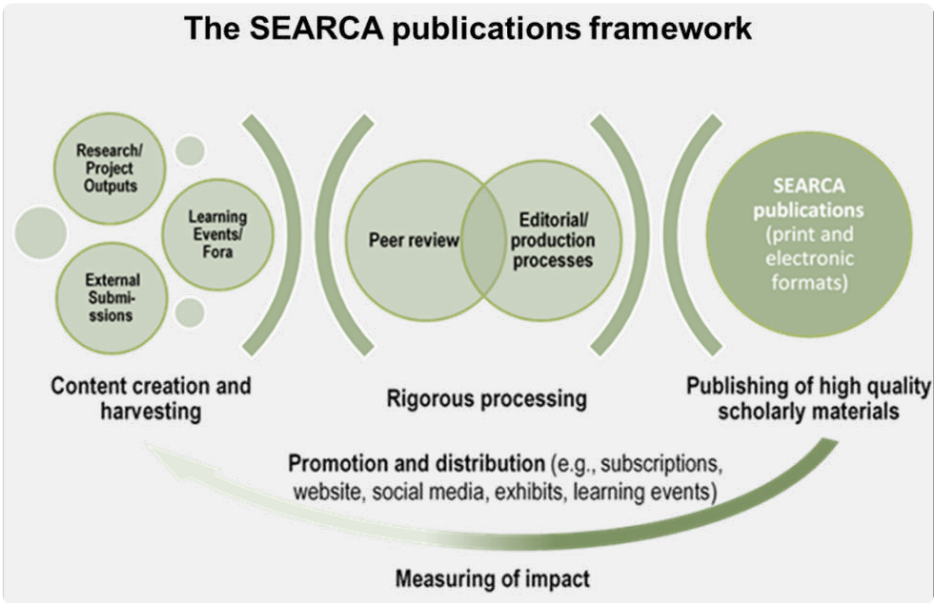
Promotes livelihood integration to enterprise through incubation of green startups; Accelerates technology adoption, adaptation and deployment through access to manufacturing, marketing and other networks.

## SHARING

### SEARCHA 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, 54 titles either focused on Indonesia or included it in its country of coverage have been published by SEARCA. These include a book (1), monographs (4), discussion paper series (5), briefs and notes (8), proceedings (3), and journal articles (33).

► **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](https://searca.org), SEARCA's official website. Over 23,000 people from 159 countries have downloaded these knowledge materials.

As of June 2023, 1,138 downloads of SEARCA publications have been made by Indonesians.

### ► 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

Indonesia is currently represented in the SEARCA Governing Board by Prof. Dra. Tjitjik Sri Tjahjandarie, Acting Secretary of Directorate General of Higher Education, Ministry of Education, Culture, Research and Technology, Indonesia. 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.



