

# ASEA

## Agroecology in Southeast Asia



- Design and assess innovative agricultural systems (integrate multifunctional plant species, rely on ecological processes, and optimize genotype × environment interactions)
- Promote participatory and territorial approaches (Facilitate the transition to agroecology by engaging key stakeholders in the management of land and natural resources)
- Strengthen education and training programs, and design capacity building strategies
- Propose innovative intervention mechanisms to support large-scale adoption of agroecology for policy makers at national and ASEAN level

*A platform in partnership for research and training (dP in French) is a long-term strategic alliance made up of a critical mass of partners and researchers around a shared program and portfolio of projects. Managed collectively, the Platform is open to members of civil society to facilitate its impact and also interacts with public policy decision makers in order to generate changes and transformations.*



The nations of Southeast Asia and the Mekong region are currently undergoing agricultural modernization based on the model and technologies inherited from the Green Revolution. The pace of this agricultural intensification varies among countries, influenced by their historical trajectories, demographic changes, economic development paradigms and the agricultural potential of their lands. Consequently, there are differences in ecological and social impacts among these nations. Nevertheless, common trends are emerging, including land degradation, biodiversity loss, growing social disparities, agriculture-related pollution, and increased vulnerability to economic and climate-related risks.

Given these challenges, the sustainability of agricultural systems in Southeast Asia is under increasing scrutiny, exacerbated by growing pressures such as population growth, climate change and increased demand for natural resources. In this context, the dP ASEA initiative strives to foster regional cooperation in advancing knowledge, technology and innovative support mechanisms for the promotion and expansion agroecology in South Asia -East.

### ■ ASEA IN A NUTSHELL

- Founded in 2009 on conservation agriculture (CANSEA) and renewed in 2021
- 4 Southeast Asian countries
- 13 member partners
- Around 50 researchers and lecturers
- Around twenty master's students and doctoral candidates
- Around twenty scientific publications / year



### ■ EXPERTISE AND TECHNICAL SKILLS

- Co-design innovative agroecological systems (integrated management of soil fertility, agroecological crop protection, sharing of genetic resources, crop-livestock integration, agroforestry, conservation agriculture)
- Conduct multi-criteria assessment of the performance, impacts and ecosystem services provided by agroecological systems
- Develop methods and tools to facilitate the agroecological transition (innovation process, conditions of adoption and dissemination)
- Provide technical and academic training on the different dimensions and components of agroecology.
- Support political dialogues for an agroecological transition, based on the knowledge capitalization and multi-sectoral approach

### ■ MEMBERS

	<b>Cambodia</b> DARLM (Department of Agricultural Land Resources Management), CE SAIN (Center of Excellence on Sustainable Agricultural Intensification and Nutrition - Royal University of Agriculture RUA), Swisscontact Cambodia
	<b>China</b> YAAS (Yunnan Academy of Agricultural Sciences)
	<b>Laos</b> DALaM (Department of Agricultural Land Management)
	<b>Thailand</b> KU (Kasetsart University)
	<b>Vietnam</b> CASRAD (Center for Agrarian Systems Research and Development), NIAS (National Institute of Animal Sciences), NOMAFSI (Northern Mountainous Agriculture and Forestry Science Institute), SFRI (Soils and Fertilizers Research Institute)
	<b>Australia</b> UQ (University of Queensland)
	<b>France</b> IRD (Institut de Recherche pour le Développement)
	<b>Cirad</b> (Centre International de Recherche en Agriculture pour le Développement)







In Cambodia, the dP ASEA closely collaborates with CASIC (Conservation Agriculture and Sustainable Intensification Consortium), a national initiative operating under the auspices of MAFF (Ministry of Agriculture, Forestry, and Fisheries). CASIC serves as a pivotal mechanism for fostering inter-ministerial coordination and uniting various stakeholders committed to advancing agroecology in Cambodia.

CASIC functions as a dynamic platform dedicated at promoting agroecological systems through knowledge management and network-building efforts. Its primary mission is to ignite interest and garner support from public policymakers, development partners, and private sector. The remarkable strength of CASIC lies in its ability to bring together a diverse network of agroecology proponents in Cambodia, encompassing research, market players, public policy advocates, and service providers.

However, a notable challenge for CASIC remains the task of piquing the interest of private sector entities and other market participants, encouraging their investment in innovation and the widespread adoption of agroecological practices and technologies.



The dP ASEA, primarily through the dedicated efforts of DALRM and with support from Swisscontact and CIRAD, played a pivotal role in the establishment of CARDEC (Cambodian Conservation Agriculture Research for Development Center). This transformative initiative marks the evolution of the Bos Khnor research station into a nationally and regionally recognized hub for advancing the agroecological transition, enhancing food security, and promoting nutrition. Under the oversight of the General Directorate of Agriculture (GDA), CARDEC is entrusted with crucial missions, including the preservation and dissemination of genetic resources, the assessment of agricultural production systems rooted in agroecology, and the facilitation of academic and vocational training programs.

The primary objectives of CARDEC include enhancing soil fertility, promoting biodiversity, increasing agricultural yields, diversifying income sources, and providing valuable ecosystem services. This specialized center focuses on rainfed crop systems and has the potential to collaborate with multiple universities in pursuit of these goals.



## SOME PROJECTS IN PROGRESS

**ASSET** – Agroecology and transition to healthy food systems in Southeast Asia (Cambodia, Laos, Vietnam, 2021-2025), AFD-EU-FFEM funding

The ASSET (Agroecology and Safe food System Transitions) project aims to make the region's agricultural and food systems more sustainable, safer and more inclusive, by harnessing the potential of agroecology. Coordinated by GRET, with scientific coordination from CIRAD and a consortium of 24 institutions and organizations, the ASSET project promotes the agroecological transition through a global approach combining stakeholders networking, capacity development, awareness and communication activities, innovation design in pilot territories, evaluation of agroecology performance and political dialogues. <https://www.asset-project.org/>

**WAT4CAM** – Water resources management and agroecological transition for Cambodia (2019-2023), AFD – EU funding

CIRAD supports the GDA in implementing research activities which aim to co-design and evaluate the performances and impacts of agroecological practices and cropping systems within irrigated areas, involving farmers, agricultural cooperatives and local private sectors. <https://wat4cam-mowram.com/>

**Metkasekor** – (Cambodia, 2021-2024), Funding Swiss Agency for Development and Cooperation (SDC) and USAID

MetKasekor (Friend of Farmers in Khmer) is an extension model that aims to expand agroecological systems by promoting market access for private sector investments. It involves different sectors, promoting access to agricultural machinery that aligns with agroecological principles, access to legume seeds and bio-inputs. <https://metkasekor.com/>

**STAR-FARM** – Smart agroecological transformation of agricultural systems towards resilience and sustainability in the central and coastal areas of the Mekong Delta in Vietnam (2022-2026), EU funding

The project aims to facilitate the agroecological transformation of agro-food production systems in the Mekong Delta in Vietnam and strengthen their resilience to climate change, environmental degradation and other external shocks.

