

Policy Guidelines for Agroecology Transitions in ASEAN - Guideline 1

How to plan for agroecology transitions?

“ Agroecology transition policy is about policy for scaling up. A policy is successful if upscaling is possible - not one copy to be used everywhere, but with successful adaptation.

The best source of information for you to develop a relevant and good policy is from the stakeholders who will be affected by the policy. There has to be an assessment of their needs. ”

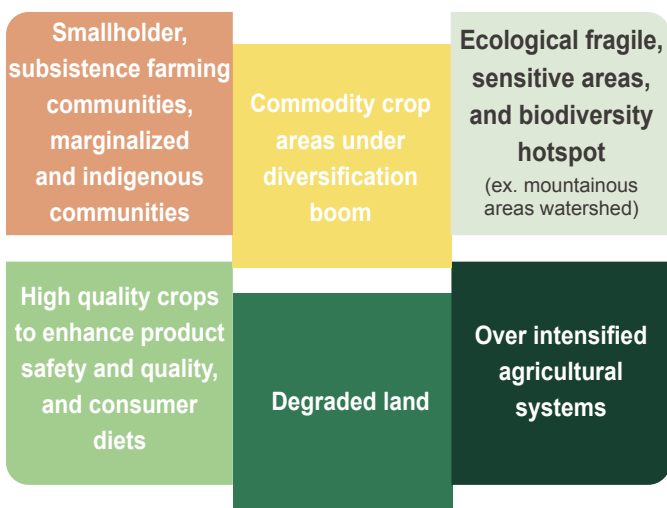
- Interview with policymaker



Formulate coherent policy and better targets for agricultural planning through agroecology

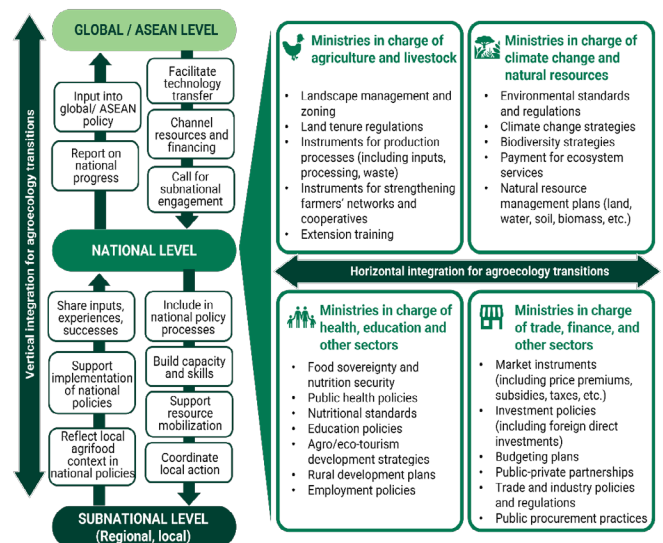
- ▶ Integrate agroecology targets into national agrifood policies
- ▶ Promote sustainable farming and food systems based on agroecological principles in planning frameworks
- ▶ Enhance collaboration across sectors and scales to govern agroecology transitions

Where to prioritize agroecology investments? Some examples



Inputs from interviews with policymakers

How can agroecology transitions be integrated in governments?



Engage stakeholders in planning processes

- ▶ Build stakeholder ownership and mobilize resources by setting realistic, ambitious targets using methods like surveys, focus groups, and consultations
- ▶ Foster long-term partnerships focused on agroecology, encouraging cross-country collaboration and knowledge sharing



Apply a landscape or territorial approach

- ▶ Promote coherent planning and intervention at landscape levels to achieve agroecological benefits
- ▶ Ensure landscape diversity to maintain ecosystem services like pollination, erosion control, carbon sequestration, and nutrient cycling
- ▶ Use landscape management to balance land use demands, improve agroecosystems and support inclusive stakeholder engagement and local knowledge use (including participatory land use planning and integrated landscape assessment)
- ▶ Support participatory approaches to prioritize interventions, foster synergies and protect vulnerable areas

Participatory land use planning and participatory agricultural land management in Lao PDR

Spotlight

The PLUP (participatory land use planning) focuses on detailed land classification and zoning at the village level, while the PALM (participatory agricultural land management) adds specific plans for agricultural land. In 2020, district authorities in Lao PDR conducted the first PLUP/PALM in Nanom Village, Xone District, allocating 37 hectares for livestock grazing and expanding forest conservation areas from 113 to 327 hectares. By 2022, all 34 villages in Xone District had land use plans, culminating in a District Land Use Plan.

Examples here highlight the benefits of PLUP/ PALM: reduced land conflicts, resource conservation, improved land tenure security, sustainable land use, higher rural incomes, and nationwide land registration, boosting public revenue and investment in rural development.



Photo: GIZ's PLUP/PALM project, 2023



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What is participatory land use planning?

Participatory land use planning (PLUP) is an agroecological landscape management approach, which is a district or village-level process involving villagers in data collection, land use zoning, planning, and monitoring. It enhances community ownership of agricultural and land use innovations, fostering sustainable practices. Success depends on building government capacity, integrating competent authorities, ensuring community participation (with a focus on vulnerable groups), supporting environmental stewardship, and linking plans to follow-up actions like land registration and conservation.



Photo: ASSET project in Cambodia, 2022



Engage private sector and strengthen planning rules for agribusiness

- ▶ Combine public and private efforts to enhance farmer skills, value chain tools such as quality standards, financial incentives, and risk management for agroecology transitions
- ▶ Strengthen regulations on land concessions and agrifood investments to prevent environmental and social harm
- ▶ Co-invest in infrastructure supporting sustainable agriculture, such as water management, renewable energy, and transport systems
- ▶ Align corporate sustainability efforts with agroecological goals based on national and community needs

To go further

- Landscapes Futures – What are landscape approaches
- FAO. 2017. Landscapes for Life: approaches to landscape management for sustainable food and agriculture
- ADB. 2017. Sustainable Land Management in Asia: Introducing the Landscape Approach
- GIZ. 2023. Agroecology: Making Ecosystem-based Adaptation Work in Agricultural Landscapes
- FAO, Agroecology Coalition. 2023. The interface between agroecology and territorial approaches for food systems transformation (Agroecology Dialogue Series, Brief No.1)

Policy Guidelines for Agroecology Transitions in ASEAN - Guideline 2

How to ensure farmers drive the transitions?

“We cannot expect farmers to switch entirely to organic farming and abandon conventional methods immediately. There will be a cycle of adjustments... We should be willing to pay the ‘tuition fee’... for farmers to transition.”

- Interview with policymaker



Strengthen farmer's, women's and youth organizations and their active engagement in agroecology policy processes

- Support active participation of farmers' organizations in policy processes (including monitoring) and multistakeholder platforms
- Strengthening national and regional farmer networks like the Asian Farmers Association (AFA), Lao Farmer Network, Farmer and Nature Net (FNN) in Cambodia, and MASIPAG in the Philippines
- Identifying and empowering farmer, women, and youth champions for collective action (see Global Action Plan of the UN Decade of Family)



Photo: MASIPAG project, 2024

MASIPAG: Farmer-led national network promoting local rice varieties in Philippines

Spotlight

MASIPAG is a national network of 518 small farmer organizations, 60 NGOs, and 18 scientists from the Philippines, promoting agroecological farming and farmers' rights. Despite being farmer-led, it has expanded partnerships with scientists and various sectors to advocate for food security, agroecology, farmers' and women's rights, and sustainable rural development. Over the past decade, scientists and students have worked with MASIPAG to enhance farmers' skills in participatory planning, leadership, and advocacy for sustainable agriculture. In 2019, MASIPAG collaborated with two high schools in Quezon Province to teach organic farming, leading to the schools adopting organic gardening as an extracurricular activity.

In any agroecology transition, **farmers are innovators, knowledge holders and change agents, and hence, risk takers**. This section provides guidance on empowering farmers (and their organizations) and creating the conditions under which they can embark on agroecology transitions and be the central actors as stewards and managers of agroecosystems.



Create enabling conditions to support farmers in transition

- ▶ Promote intercropping, farm diversification, and diversified rural livelihoods
- ▶ Improve market environments for small farmers, especially women and youth, through better market and policy information systems and reformed and greener public procurement schemes
- ▶ Provide tailored safety nets and insurance for farmers in transition
- ▶ Partner with private companies to use low-cost tech (e.g., SMS) for alerts on weather, crop diseases, and regulations
- ▶ Enhance access to market and price information via ICT to aid smallholder decision-making
- ▶ Review insurance and social safety nets based on actual risks faced by transitioning farmers

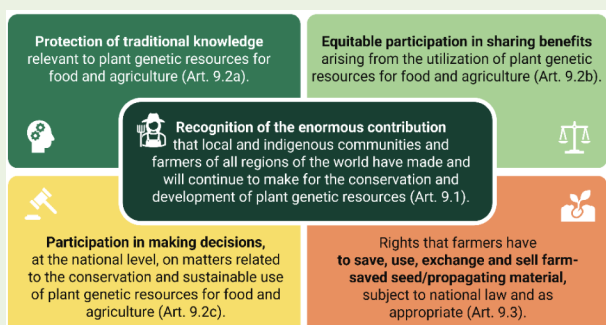


Promote a safe legal and institutional environment

- ▶ Uphold the United Nations Declaration on the Rights of Peasants (UNDROP) and support farmers' rights to conserve and manage agrobiodiversity
- ▶ Promote a rights-based approach to data management for farmers

What is the International Treaty on Plant Genetic Resources for Food and Agriculture?

The Treaty, adopted by the FAO in November 2021 and with 150 contracting parties to date (149 member states and 1 intergovernmental organization, the EU), aims to ensure food security by conserving, exchanging, and sustainably using plant genetic resources for food and agriculture (PGRFA), ensuring fair benefit sharing, and recognizing farmers' rights, which align with agroecology. Farmers' rights are emphasized in Art 9.



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Sustainable Agriculture Code of Arakan: Local Agroecology Policies

Adopted in 2017 with SEARICE support, the Sustainable Agriculture Code of Arakan, North Cotabato, Philippines, promotes organic agriculture, community seed banks, access and benefit sharing, livestock, agroforestry, aquaculture, and farmers' rights. It regulates activities, including banning genetically modified crops, and involves stakeholders in policy-making. Strong political will and lobbying led to its adoption. Farmers and the Office of the Municipal Agriculturist (OMA) played key roles in formulating and implementing the Code, making it an election issue and ensuring candidates supported it. The Code now serves as a model for municipalities aiming for sustainable agriculture.



Photo: SEARICE project 2020

Spotlight



Harness the potential of digital technologies and data/knowledge management systems

- ▶ Use digital technologies to close information gaps, document practices and innovations, reconnect farmers with consumers, and facilitate knowledge sharing and hybridization
- ▶ Leverage technology to preserve and share traditional knowledge, blending it with digital tools
- ▶ Promote collaborative platforms that enhance farmer networking and participation in multistakeholder processes

To go further

- FAO and IFAD. 2019. United Nations Decade of Family Farming 2019-2028. Global Action Plan. Rome.
- United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas: resolution/2018
- Farmers' Rights under the International Treaty on Plant Genetic Resources for Food and Agriculture
- FAO. 2022. Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security
- Grow Asia Digital Directory: Digital Solutions for Smallholder value Chains in ASEAN

Policy Guidelines for Agroecology Transitions in ASEAN - Guideline 3

How to transform markets and agrifood chains?



“Empowerment of farmers means that they are empowered in the marketplace. We should be able to create a movement not only building on solidarity, but also understanding the needs of the consumer groups, including those from marginalized rural areas.”

- Interview with policymaker



Support domestic market development and short value chains for agroecological products

- ▶ Provide public facilities to diversify market places for agroecology farmers, thereby ensuring consumer access to more local, diverse, sustainable food
- ▶ Support public procurement from agroecological farms and local consumer-led initiatives like Community Supported Agriculture (CSA)
- ▶ Enhance collaboration across sectors and scales to govern agroecology transitions

What is community-supported agriculture?

Community-supported agriculture refers to a partnership based on direct connections between consumers and one or several producers, with three guiding principles: 1) Community building through direct and long-term relationships with shared responsibility, risks and rewards; 2) Active participation based on trust, understanding, respect, transparency and cooperation; and 3) Mutual support and solidarity beyond borders. It involves consumers who support farmers financially by buying shares of a farm's harvest in advance.

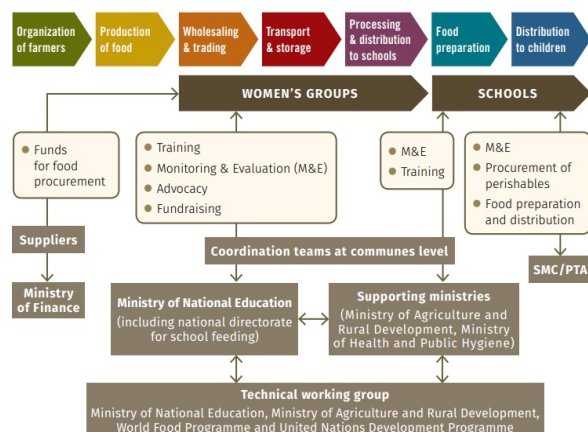
- ▶ Resource: <https://urgenci.net/>



Create an enabling environment for domestic inclusive value-chain transformations

- ▶ Invest in digital technologies, transport, and cooperative marketing systems for agroecology farmers
- ▶ Strengthen smallholder connectivity, marketing farmer organizations, and local food systems through support for SMEs and food processing, agrotourism and local gastronomy
- ▶ Use ICT and social media platforms to empower smallholders, foster collaboration and enhance local market developments
- ▶ Incentivize large retailers to procure diverse local food products from agroecology farmers

An example of farm-to-school model of school feeding





Adapt public regulations on food safety, quality standards and certification to support agroecology product differentiation and consumer conscious choices

- ▶ Tailor food safety regulations and quality standards to agroecology systems and harmonize regional standard enforcement
- ▶ Adapt quality assurance schemes to different value chain needs and promote transparency throughout value chains
- ▶ Support certification through participatory guarantee systems

What is participatory guarantee systems?

Participatory guarantee systems (PGS) are localized quality assurance mechanisms certifying producers through peer to peer visits, trust, and knowledge exchange (IFOAM, 2013). Unlike third-party certification, which relies on external assessments, PGS foster farmer–stakeholder interactions to establish credibility. This collaborative approach involves producers, processors, retailers, and consumers sharing responsibility for product quality. Benefits of PGS include support for local marketing and improved market access, enhanced peer to peer practice and knowledge sharing, heightened consumer awareness, and empowerment of farmers and consumers through ownership of the assessment process. PGS not only empower farmers but also promote connectivity, solidarity and transparency in governance.



Consumer oriented policies: health, nutrition sensitive measures

- ▶ Align consumer incentives and value chain-level interventions to create food environments that encourage healthy, diversified diets and raise consumer awareness on nutrition and food safety
- ▶ Strengthen consumer advocacy and promote clear food labeling and advertising laws for informed choices
- ▶ Integrate nutrition-sensitive approaches into social protection programs



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Support local value chain development for inputs, equipment and machinery

- ▶ Facilitate access to local organic inputs (seeds, fertilizers, bio-insecticides, animal feeds) and to affordable, eco-friendly equipment and machinery
- ▶ Encourage farm by-product valorization and crop-livestock integration at territorial level to reduce food waste and improve resource efficiency
- ▶ Support local seed production and conservation

ECHO Asia: Seed Saving and Seed Banking Initiatives in Southeast Asia

Spotlight

For nearly 15 years, the ECHO Asia Regional Impact Center has promoted seed saving and banking best practices in Southeast Asia. Using low-cost, appropriate tech approaches, ECHO has promoted the establishment of small-scale Community Seed Banks in dozens of remote communities currently underserved by the informal seed systems of the region. These Community Seed Banks make available seeds of high quality, diverse and improved genetics, and of improved viability.



Reform trade-related instruments, price support and sourcing policies

- ▶ Implement true cost accounting to assess farming and value chain externalities and encourage trade policies reform that enhance sustainable value chain competitiveness
- ▶ Adjust and align tariffs, non-tariff barriers and price supports across ASEAN countries to favor agroecological products and sustainable practices
- ▶ Incentivize sustainability conditionalities in corporate sourcing and contract farming

To go further

- Constructing markets for agroecology – An analysis of diverse options for marketing products from agroecology
- Public food procurement for sustainable food systems and healthy diets – Vol. 1
- Public food procurement for sustainable food systems and healthy diets – Vol. 2
- The CSA Farmer to Farmer Booklet (Urgenci)
- Innovator's Handbook: Enabling Sustainable Food Systems
- Open Food Network



Policy Guidelines for Agroecology Transitions in ASEAN - Guideline 4

How to build capacity and share knowledge?



“ When everyone has awareness, the adaptation process can be scaled up. Agroecology should be included in the curriculum. It is important to have basic knowledge of how to take care of our lands. ”

- Interview with policymaker



Build farmers and rural communities' capacities, and facilitate farmers-to-farmers exchange for agroecology transitions

- ▶ Empower farmers in documenting, sharing experiences and learnings, and foster Farmer Field Schools and farmer learning
- ▶ Support knowledge-sharing networks, study tours, and use diverse media to enhance access to information and markets

Scaling Up Agroecological Rice

Production Through Farmer's Learning in Malaysia

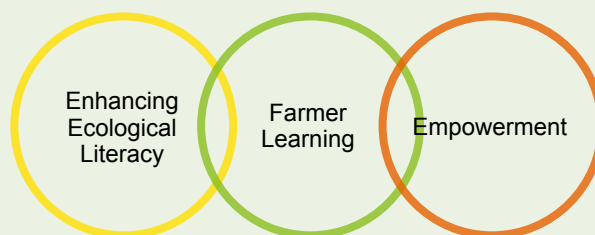
SRI-MAS is established by academics, government officials, civil society organizations and farmers after the First National Seminar on System of rice Intensification (SRI) in 2012, working to enhance food security in Malaysia through the adoption of agroecology-based practices by local farmers. It adopts a social learning approach for agricultural extension and innovation, fosters Farmer Field Schools to create an experiential learning environment and regularly conducts consultative workshops for farmers on a variety of agroecology-related topics. SRI-Mas runs the SRI Farm Network between five states in Malaysia for SRI communities to share struggles and exchange ideas and is connected to the greater Asia SRI Network.

Spotlight

Farmer Field Schools (FFS)

Launched in the late 1980s by the Government of Indonesia, with support from FAO, the Farmer Field Schools were originally developed as a practical approach for farmers to learn about ecology and IPM, building on local knowledge systems, learning in groups, and using field-based, hands-on learning to empower farmers. By the end of the 1990s, over 1 million farmers had been trained in Indonesia through FFS. This successful model was shared across Asia, leading to the initiation by development in the FFS box in other countries in South Asia and Southeast Asia, prior to its dissemination to

FFS promotes a paradigm of agriculture based on:





Reshape extension and advisory services

- Implement community-based, inclusive extension services, focusing on smallholder farmers and vulnerable groups
- Foster engagement of extension services in action research and organizational innovation support systems such as farmers' networks or landscape approaches, and promote village volunteers and regional Centers of Excellence to enhance agroecological knowledge and innovation

How does Lao PDR promoting agroecology through green extension?

Spotlight

Participatory agro-ecosystem

Community planning

Action Research

Farmer to Farmer Learning

Organisational development

Green Extension is an umbrella term used to describe rural advisory services which support the scaling up of sustainable agriculture. The concept and practice of Green Extension has been developed and implemented in Lao PDR within the framework of the Lao Upland Rural Advisory Service (LURAS) since 2015.

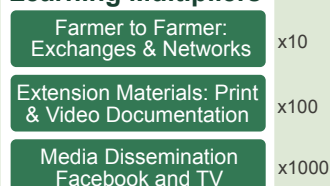
Green Extension: Multiplying the Impact

Learning Centers



Each Center = 20 to 200 Learners

Learning Multipliers



Mainstream agroecology in vocational training, higher education and academic curricula

- Build partnerships between farmers' organizations and universities to co-develop research and higher education agendas adapted to agroecology transition needs
- Develop short courses and regional academic exchanges focused on agroecology, and include performance measurement tools in curricula



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The Agroecology Learning Alliance in South East Asia (ALiSEA) **Spotlight**

ALiSEA, initiated in 2015, is an open South-East Asia coalition that aims to enable local and regional agroecology stakeholders to leverage one another's expertise to produce evidence-based studies and share them broadly to support a regional transition towards agroecology. Its three key objectives are: (1) Strengthening knowledge and experience sharing among agroecological actors. (2) Increasing the visibility and credibility of agroecology with policymakers and consumers. (3) Scaling up agroecological practices among farmers. With over 180 member organizations across Cambodia, Laos, Myanmar, Thailand, and Vietnam, ALiSEA is unique for its diverse stakeholders (CSOs, NGOs, farmer organizations, academia, and the private sector) and member-driven governance.



Photo: ALiSEA project, 2023



Enhance public awareness on agroecology

- Promote agroecology education for youth and use social media to highlight its benefits
- Support public awareness campaigns through partnerships, integrating agroecology education into schools, and emphasizing its role in public health and biodiversity

To go further

- Farmers taking the lead - Thirty years of farmer field schools
- TOOLKIT: Peasant Agroecology Schools and the Peasant-to-Peasant Method of Horizontal Learning
- Platform: Global Farmer Field School Platform
- Learning kit: New Extensionist Learning Kit
- Good practice note: Promoting sustainable agriculture through green extension in Lao People's Democratic Republic
- Brochure: Enabling extension and advisory services to promote agroecology
- APIRAS Repository of Agroecology Course Curricula
- Policy brief: Mainstreaming agroecology in agricultural education
- Policy brief: Being "agricool": Supporting ASEAN youth and tertiary student futures for sustainable agrifood system learning and livelihoods to meet the Sustainable Development Goals (2021)

Policy Guidelines for Agroecology Transitions in ASEAN - Guideline 5

How to engage stakeholder?



“ Agroecology is the entry point... we are coming together and thinking in a more systematic way with an agroecology approach.

At the national level, we need to create these platforms, these mechanisms, not just for solidarity and exchange of inputs, but to really get our feet on the ground to have the scale, and from the experiences of all, create a bigger voice. ”

- Interview with policymaker



Identify and co-develop clear objectives for engaging stakeholders

- ▶ Engage stakeholders purposefully, co-develop objectives, and align them with national targets and innovation needs
- ▶ Consider identifying barriers to agroecology transitions and mobilizing stakeholders to support national agroecology goals



Conduct stakeholder mapping, and develop understanding of their perspectives and interests

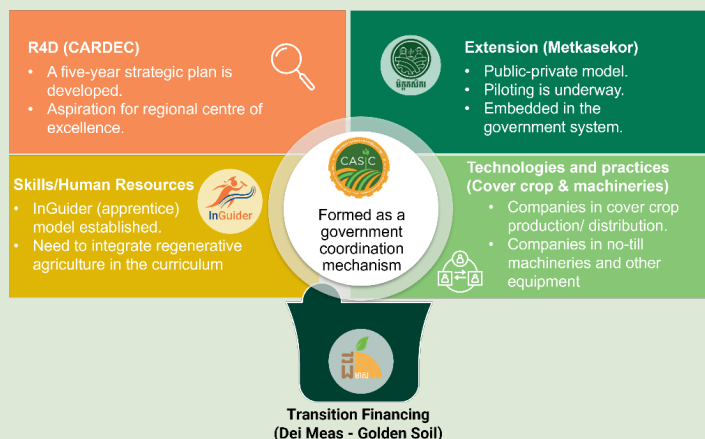
- ▶ Identify stakeholders at all levels, including marginalized groups and emerging actors such as sustainability brokers (e.g. ISEAL, IFOAM)
- ▶ Assess stakeholder positions on agroecology and create tailored strategies for building collaborations among key actors like governments, farmers, rural communities and agribusinesses

Cambodia Conservation Agriculture and Sustainable Consortium

Conservation Agriculture and Sustainable Intensification (CA & SI) activities have been implemented in Cambodia since 2004, yet due to the lack of participation from the private sector and other stakeholders, its activities have not been scaled up widely. In this context, CASIC was established as a national platform, governed by the Ministry of Agriculture, Forestry and Fisheries, for members to create network among public sector, private sector and other organizations aiming to promote CA & SI and Agroecological practices in Cambodia.

Rectangular Approach for Agroecology Transition in Cambodia

Spotlight



An on-going 3-year pilot to explore financial mechanisms for a sustainable and long-term transition of smallholder farmers toward agroecological practices.



Institutionalize engagement

- ▶ Ensure sustained, inclusive engagement with adequate resources and leadership support
- ▶ Create or foster inclusive multistakeholder platforms for regular communication, knowledge sharing, and policy integration
- ▶ Formalize relationships and responsibilities with key groups and develop transparent policies for engagement
- ▶ Define feasible indicators to monitor progress against targets and entrench them into existing monitoring systems if applicable

Monitoring and evaluation tools for enabling multistakeholders in agroecology transitions

M&E tool	Primary users	Online resources
Tool for Agroecology Performance Evaluation	Producers (farmers, agriculture departments, technical advisers), policy makers and development stakeholders	<ul style="list-style-type: none"> ▶ Online resources ▶ Guidelines
Working Group on Agroecological Transitions Method	Development stakeholders	<ul style="list-style-type: none"> ▶ Handbook
Business Agroecology Criteria Tool	Development stakeholders	<ul style="list-style-type: none"> ▶ Online resources ▶ Toolkit
Agroecology Financing Analysis Toolkit:	Public sector: government planning ministries and development agencies	<ul style="list-style-type: none"> ▶ Online resources ▶ Toolkit



Aim for transformative engagement beyond consultation

- ▶ Empower stakeholders, particularly farmers, women, and youth, by enhancing their voice, capacity, rights, and social recognition
- ▶ Build collaborative agendas, programmes and non-traditional partnerships across diverse sectors and organizations to drive agroecology transitions
- ▶ Address power imbalances and foster trust through transparency and meaningful dialogue



Spotlight

PPSA: Private Sector Initiatives on MSE for Agroecology

The Philippine Partnerships for Sustainable Agriculture (PPSA) is a regional multi-stakeholder platform initiated by Grow Asia, and catalysed by World Economic Forum and the ASEAN Secretariat, with an aim to empower and transform smallholder farmers and fishers to be self-reliant and resilient. PPSA applies a strategic matching approach in brokering partnerships for project development. It also provides guidance on data, project design, stakeholder mapping and technical support based on partners' commitment, capacities and sectoral needs.

Elements of an empowerment and inclusion framework



ESCAP. 2019. Accelerating Progress: An Inclusive, empowered and equal Asia and the Pacific.

To go further

- [Rethinking Our Food Systems: A Guide for Multi-Stakeholder Collaboration](#)

Policy Guidelines for Agroecology Transitions in ASEAN - Guideline 6

How to develop a research agenda for agroecology transitions?



“Technical support is easy; mass training is possible – but how to adapt agroecology to each context is what is missing. Research is needed with farmers to find the agroecology solutions that work. There needs to be evidence from the field that, with agroecology transitions, it will be possible to 1) scale up, 2) produce enough, and 3) export as needed.”

- Interview with policymaker



Reshape research orientations to support agroecology transitions

- ▶ Enhance public research at farm, landscape, and food system levels
- ▶ Focus on diversification at farm, livelihood and land use levels, and on reduced reliance on external inputs
- ▶ Invest in multidisciplinary research teams to assess farming and food systems comprehensively combining economic, environmental and social performance evaluations, with capacity to inform and better support policy planning
- ▶ Support innovation design research and integrate farmers' and local knowledge with scientific approaches



Foster innovative approaches of doing research and co-producing knowledge with a variety of actors

- ▶ Strengthen the connection between research, knowledge sharing and capacity building, prioritizing participatory action research
- ▶ Support national and ASEAN-level Centers of Excellence combining long-term experiments and practical training for agroecology
- ▶ Invest in science policy partnerships integrating not only technical expertise but also social sciences skills, including participatory and forecasting tools, to support inclusive policy planning and monitoring of agroecological and food system transformation progress

Crop-Livestock Integration



ASSET project, 2023

Participatory action research on crop-livestock integration in Northern Vietnam

The ASSET project in Northern Vietnam used participatory action research to address crop-livestock integration challenges, engaging farmers, community leaders, and researchers. A collective action plan organized tests and responsibilities, providing farmers with training, seeds, equipment, and forage management techniques. New forages, including legumes, and silage were introduced and tested to improve forage diversity and conservation. Enhanced feeding practices supported stabling, crucial for organic fertilizer production. Regular follow-ups monitored progress, addressed constraints, and assessed results. Demonstrations facilitated farmer-to-farmer knowledge exchange and promoted scaling up successful models.

Spotlight



Address farm scale agroecology research agenda

- Co-design solutions with farmers and local communities, prioritizing long-term on-farm trials on cropping and livestock diversification, monitoring agroecological practice and farming system performances
- Support locally adapted multiple performance-based crop and livestock breeding and research on soil health, intercropping, multi-functional service crops, low-tech mechanization, biological crop and protection and animal health, and circular economy principles including crop livestock integration
- Encourage co-designing digital tools and agricultural technologies with farmers to monitor and adapt agroecological practices at farm and landscape levels



Photo: CSAM, 2023

CSAM: Low cost and low-tech mechanization to decrease drudgery

The Centre for Sustainable Agricultural Mechanization (CSAM), part of the UN ESCAP, promotes sustainable agricultural mechanization through knowledge exchange, R&D, technology transfer, and agro-business development, emphasizing South-to-South cooperation. CSAM's Asian and Pacific Network for Testing of Agricultural Machinery (ANTAM) has established regional standards for testing three types of machinery. Pilot projects on straw residue management have reduced CO₂ emissions, increased farmer income, and improved milk production. CSAM aided Cambodia in establishing its first National Agricultural Machinery Association, facilitating agroecological transitions.



Role of sustainable agriculture mechanization

Improve operations for production

- Greater speed of operations
- Increase yield and output
- Reduce production costs
- Increase cropping intensity

Improve efficiency of storage and processing including for perishables

- Reduce loss
- Empower farmers to better decide time and price of sale

Promote conservation agriculture and agroecology

- Minimum or no-till farming
- Enhance resilience of smallholders



Address shortage of manpower

- Eg. rice transplanters and combine harvesters, seed cleaners and graders.

Mechanization solutions for livestock farms to prevent and control zoonotic diseases

- More reliable elimination of pathogens
- Block transmission routes
- Enhance biosafety

Retain migrant workers & youth in agriculture

- Reduce drudgery
- Entrepreneurship and increased income



Address landscape-scale agroecology research agenda

- Prioritize research on spatial and temporal dimensions of agroecology at the landscape level, particularly in relation to ecosystem services, land use diversification and rural livelihoods
- Foster action research that supports inclusive participatory land-use planning and spatial tools to govern landscape management and integrate diverse perspectives



Address food system-scale agroecology research agenda at various levels

- Foster cross-sectoral research linking agriculture, health, environment and social sciences to inform national and ASEAN food system transformation policies and enhance science policy partnerships
- Prioritize collaborative research on food systems assessment methods data interoperability, and promote harmonized data management systems and national research platforms and engagement in broader agroecology and food systems-related networks
- Foster research on local quality-based value chains and food system innovations, including integration with tourism activities, such as territorial branding

To go further

- True cost accounting
- Participatory theory of change and the agroecological transition
- Guidance on strengthening national science-policy interfaces for agrifood systems
- CIRAD, FAO, EU. 2023. Transforming food systems: from assessment to policy

Policy Guidelines for Agroecology Transitions in ASEAN - Guideline 7

How to finance agroecology transitions?

“Financial institutions are encouraged to develop innovative financial mechanisms and insurance tools in support of investment in agriculture, especially appropriate solutions for smallholders, including those that are family farmers, that consider a long-term development perspective.”

- ASEAN Guidelines on Promoting RAI



Create an enabling framework to repurpose public and private fundings towards the transition

- ▶ Encourage public-private partnerships and multistakeholder collaboration to strengthen financing commitments for agroecology
- ▶ Reform national agricultural subsidies, import / export policies, and price schemes to reflect the true costs of agrifood inputs and outputs, including the benefits of agroecology
- ▶ Support domestic banks in developing sustainable finance standards, decentralize financing schemes using landscape-level planning and improve access to green and responsible finance for local communities
- ▶ Promote performance-based reforms, fostering partnerships between financial institutions, and supporting local banks to aggregate green projects and enable SME access to capital markets
- ▶ Strengthen environmental offset regulations to channel funds from agrifood companies into agroecology programs

Sustainability finance models with potential to support agroecological transition

Finance models and funding sources	Targets of financial support and mechanisms on the ground
Payment for Ecosystem services (PES)	Rewards to landowners or farmers for ecological benefits like carbon sequestration, water purification, or biodiversity protection, often through practice-based subsidies.
Voluntary carbon biodiversity markets, climate credits	Voluntary carbon markets: Individuals or organizations buy credits for carbon/GHG reductions or biodiversity preservation. Result-Based Climate Credit: Credits for carbon or GHG reductions, either through carbon removal (e.g., soil sequestration, agroforestry) or emissions avoidance or carbon footprint compared to a baseline scenario.
Insetting	Emission reduction investments within a company's value chain, sourced externally.
Green, blue and social impact bonds	Results-based financing linking environmental and socially conscious investors (outcome funders) with enterprises delivering social programs or services (e.g. ADB Green and Blue Bonds)
Blended finance	Combines investments from diverse stakeholders with different objectives, blending financial returns and environmental /social impacts, etc. (e.g., Indonesia's Tropical Landscapes Finance Facility).
Financing of the transition as a whole	Flexible microloans, etc. empower individuals across value chains to invest in climate-resilient livelihoods and environmentally conscious activities (e.g. Chamroeun Microfinance in Cambodia)
Financing of the transition as a whole	Practice-based reward system combined with measurable outcome verification and certification (e.g. Dei Meas pilot)

ESCAP and SwissContact Dei Meas, Ecosystem Marketplace website, 2023





Build a coherent national agroecology strategy and accountable framework to direct international funding into the transition

- Develop a national agroecology strategy and accountable framework aligned with government priorities (e.g. Nationally Determined Contributions (NDCs and National Biodiversity Strategies and Action Plans (NBSAPs)) to attract sustainable finance from public and private sectors
- Establish a high-level multistakeholder taskforce to design a financing strategy for agroecology, including leveraging climate finance and biodiversity credits for local transitions
- Set clear targets for agroecology transitions through inclusive policy planning and monitoring, integrating these into national strategies such as NDCs and biodiversity plans
- Present agroecology funding needs in bilateral and international negotiations and incorporate agroecology criteria into environmental and social impact assessments



Develop innovative financial models that address smallholder needs for transitioning, while leveraging global sustainability finance

- Explore diverse financial sources and models to provide adaptable solutions that meet local needs
- Experiment with financial models that fit global sustainability finance schemes into local agroecological transitions, ensuring they support holistically farmers and stakeholders, align with national and global targets, and meet impact monitoring and certification requirements
- Designate and capacitate a government body to oversee the piloting of these financial instruments, ensuring they meet the needs of national strategies for agroecology
- Collaborate with development institutions, research bodies and NGOs to design and test transition finance instruments. These should combine tailored support for varied smallholder transitions, reliable environmental and social outcome measurement, and institutional arrangements that address the needs of different financial models (e.g. Dei Meas in Cambodia)
- Design financial tools that prioritize long-term support for smallholders and communities, ensuring they address local needs and provide innovative risk mitigation strategies
- Leverage research and technology to develop metrics that quantitatively and comprehensively measure agroecological outcomes, meeting the needs of sustainability finance for impact reporting while effectively financing local transitions

Dei Meas: Sustainability finance instrument in Cambodia

Spotlight

Dei Meas is a pioneering sustainability finance initiative in Cambodia, focused on helping smallholder farmers transition to agroecology rather than rewarding specific carbon or sustainability targets. In its 3-year pilot stage, led by SmartAgro, CIRAD, and Swisscontact under CASIC, with support from ASSET and ISA projects, Dei Meas provides transition support, impact measurement, financing & certification, and government alignment.

The Dei Meas Model



To go further

- [The ASEAN Guidelines on Promoting Responsible Investment in Food, Agriculture and Forest](#)
- [ASEAN Green Financial Instruments Guide](#)
- [Transformative Land Investment](#)
- [Agroecology fund](#)
- [Transition financing \(Dei Meas\)](#)