Agroecology and Safe Food System Transitions

ALiSEA Agro-ecology Learning alliance in South East Asia

An Agroecological Cambodia by 2040

Position Paper

October 2023

AGROECOLOGY

Agroecology is a science, a practice and a social movement that applies ecological and justice principles to the design and management of sustainable and fair food systems.

TOC WORKSHOP IN CAMBODIA

- Date: 18-19 October 2022
- 42 participants, including 16 women
- 13 NGOs, 4 research centers/acadamia,
- 2 governmental bodies
- Main output is a shared vision of an agroecology transition among stakeholders involved in agroecology in Cambodia.

I. A FUTURE PATHWAY FOR AGROECOLOGY IN CAMBODIA

This paper presents the findings of the ASSET and ALISEA National Foresight and Theory of Change Workshop held in Phnom Penh in October of 2022. The workshop was organized as part of the ASSET project to engage in a transformative approach and foster a sense of belonging to a common vision for agroecology and safe food systems. It also aimed to strengthen the ALiSEA Network as a coalition and a community of practices. The main objectives of the session were to engage key stakeholders involved in Cambodia's agroecology in reflecting on the future of the agricultural and food systems at the national level and the potential associated with agroecology to drive sustainability and to guide ASSET project's interventions and inform its Monitoring, Evaluation and Learning (MEL) [1].

II. AGROECOLOGY IN THE CAMBODIAN FOOD SYSTEM LANDSCAPE

Cambodia's agricultural landscape presents a dynamic tableau of demographic growth, economic shifts, and environmental challenges, along with a set of emerging opportunities for the scale-up of agroecology. The nation's population continues to expand, with a growth rate of 1.17% in 2021 [3]. Agriculture, forestry, and fisheries play a substantial role in Cambodia's economy, contributing 23% to the national GDP in 2022 and exceeding 5 million USD in 2021 [4]. However, employment in agriculture has decreased from 74% in 2000 to 35% in 2019 [5], as more farmers have transitioned to the secondary and industrial sectors.

In response to the dwindling availability of agricultural land, especially in the Central Plains, and driven by economic reforms, a significant number of individuals have migrated to cities in search of employment or to upland areas for new land allocations. Smallholders clearing new land for agriculture, coupled with persisting illegal logging and large-scale agro-industrial plantations, has emerged as a driver of deforestation [6].

Cambodia's agricultural systems stand at a crossroads, navigating between conventional practices reliant on synthetic inputs and monocropping and emerging

ALISEA NETWORK IN CAMBODIA

The Agroecology Learning alliance in South East Asia (ALiSEA) is supported and coordinated at national and regional level by GRET. ALiSEA's goal is 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. In Cambodia, it gathers 77 members with diverse backgrounds, including NGOs, farmers' organizations, universities, private sector and governmental institutions [19].

agroecological approaches. The sector grapples with several externalities, including substantial soil erosion and soil carbon loss [7], increased frequency and severity of droughts and floods and high vulnerability to climate change impacts [8]; and a significant uptick in pesticide usage from 0.3 to 3.6 kg/ha from 2010 to 2021 [9].

For a significant transition towards agroecology, it is essential to address key cultivated crops production systems. Rice production remains a dominant force in Cambodian agriculture, accounting for 63% of output. Cassava (12%), rubber (9%), and other perennials (8%) follow, with maize contributing 4% [10]. Besides, agroecological diversification holds potential on untapped domestic market in sectors like vegetables, poultry [11], and Neglected and Underutilized Species (NUS) [12], contributing to Cambodia's journey towards self-sufficiency.

The agricultural investment landscape has shifted, marked by the decline of Economic Land Concessions and the rise of contract farming. Other challenges like over-indebtedness and conflicts arising from overlapping land claims persist [13]. While the shift towards the so-called 'commercialization of agriculture' and 'cash crops' has been reported to bring modernization and short-term increased yields, it also poses critiques on equality and sustainability. A recent study shows that large-scale farming, especially in the case of non-edible cash crops, threatens food security in terms of the diversity and stability of food, and incomes are reported as insufficient to compensate for farm expenditures. New distinctly gendered vulnerabilities have emerged, including free market price volatility and land access [14].

While the number of undernourished people has reduced, severe food insecurity affected 2.5 million people (2019-2021) [15]. This contrasts with the rise of fast-food culture in large cities, contributing to increasing rates of obesity and overweight individuals among the working population [16]. Food safety controls need improvement, as evidenced by recurrent food poisoning incidents. Notably, there has been a growth of 'safe,' 'GAP,' and 'organic' shops in urban settings, indicating an increased consumer awareness [17].

Agroecology in Cambodia builds upon national efforts to promote conservation agriculture, and organic farming. While most initiatives primarily concentrate on agroecological practices at the farm and landscape level, there is a growing need to expand efforts into the transformative social, economic, and political dimensions.

In November 2018, Cambodia hosted the Agroecology Futures Forum, the largest agroecology event in the Mekong region, which brought together over 260 stakeholders [18]. An increasing number of NGOs, farmers' cooperatives, academia, and companies are actively promoting agroecology within the ALISEA Network [19]. The ASSET project aimed at working on the co-construction of a national pathway to address these challenges, while building a shared vision to unite efforts and scale up the transition movement [20].

These initiatives mark a significant stride toward a more sustainable and fair future for Cambodia's food system. Increasing number of evidence show the potential of agroecology to face current Cambodian challenges by improving crops productivity over time, fostering long-term economic profitability and

reducing malnutrition triple burden. It also holds potential to create more and better jobs that would be potentially more attractive to youth, regenerate degraded ecosystems and biodiversity, and enhance autonomy and empowerment of farmers, especially women [21].

III. KEY FINDINGS

Throughout the ASSET and ALISEA National Foresight and Theory of Change Workshop, multiple sessions during several days engaged participants in the constructive processes of identifying obstacles, recognizing opportunities and emerging trends, envisioning a future for agroecology, and mapping out pathways for 2040.

IV. OBSTACLES, OPPORTUNITIES AND FUTURE TRENDS

Building on a methodological approach rooted in the ImpresS ex ante framework [22] and adapted to the goals and configurations set for this ToC development under ASSET project, participants collectively analyzed the current state of the agricultural production industry, thereby pinpointing obstacles, opportunities, and potential future trends. The primary obstacles, opportunities, and trends are summarized in the table below:

OBSTACLE	Lack of knowledge and experience in agroecology among farmers and other stakeholders; Lack of premium price for agroecological products; Lack of specific policy incentives for agroecological farmers;
OPPORTUNITY	Integration of agroecology in formal and informal education; Increased consumer awareness of the need to access healthy and safe food that has led to an increased market demand of agroecological products; Existing regulations and plans to promote agroecology (example: National Development Plan); Digitalization and digital school: a window to spread agroecology
TREND	Healthy/safe production featured by improved coordination between farmers and consumers; Increased demand for fast-food, processed products and fresh vegetables; Agribusiness investment in smart and regenerative agriculture. Smart agriculture technologies such as green-house, hydroponic systems, etc.. This is perceived as a market opportunity to scale agroecology; Increased population, pressure on land and water, land speculation and water infrastructures and consumption; decreased diversity.

V. AGROECOLOGY FUTURE VISION IN CAMBODIA BY 2040

The participants discussed the desired future state regarding the key current obstacles, opportunities, and trends with the aim of developing a vision for the future of agroecology and safe food systems in Cambodia. Their vision includes the following features:

1. Improved Agroecological Knowledge and Practice Among Farmers & Other Stakeholders:

- 75% of Cambodian farmers increase their knowledge on agroecology, 50% actively practice it.
- Agroecology is the cornerstone of the agricultural approach, embedded in extension services, universities, and technical and vocational education and training (TVET), supported by a robust legal and policy framework and digital tools.

2. Establishment of Inclusive and Trust-Based Agroecological Market Platforms:

- Dedicated platforms have been established to coordinate production, market activities, and capacity needs within specific agroecological value chains. These platforms are legally recognized and financially sustainable.
- Active participation in these platforms is ensured for all essential stakeholders, encompassing producers, the private sector, and consumers.
- Equal representation and negotiation powers are afforded to women and youth.

  The platforms promote the development of agroecology as a successful and fair business based on trust among all stakeholders.

3. Localization of Markets Guided by Principles of Circularity, Fairness, Self-Sufficiency, and Affordability:

- At least 35% of consumers will afford agroecological products, and farmers will consume a portion of their agroecological production.
- Approximately 70% of the production is sold in short market circuits (from cero to three intermediaries) involving farmers organizations engaged in trust mechanisms with consumers;
- Fair pricing for agroecological products, determined by farmers themselves, characterizes these trust mechanisms, with ready access to information on stock and price fluctuations. Oversight by the Ministry of Commerce ensures equity and balance.

4. Establishment of Agroecology-Friendly Policies:

- Comprehensive policy measures provide unwavering support for all facets of the agroecological food system.
- Incentives facilitate the transition of farmers and cooperatives to agroecology, while the availability of extension services and local advisors caters to the needs of AE farmers.
- Mandatory public procurement of agroecological products established by law, including within public school feeding programs, promotes widespread adoption of agroecological practices.
- Existing platforms, particularly CASIC, serve as effective vehicles for amplifying the message and benefits of agroecology.

5. Advanced Healthier Food Policies and Awareness:

- Commitment to healthier food policies will include rigorous regulations for domestic and imported products, with a focus on providing information regarding agricultural practices (chemical, agroecological..) and nutritional content, prevent fast-food and promote diverse local foods based diets.
- Empowered consumers will have access to information about the health implications of their food choices, and to affordable quality and healthy options.
- Development of evidence-based health policies that take into account the connection between food and health.
- Cooperatives will process their production surpluses to reduce food losses and safety issues, while also enabling them to directly sell fresh and processed products to consumers.

6. Efficient Resource Utilization and Renewable Energy Adoption:

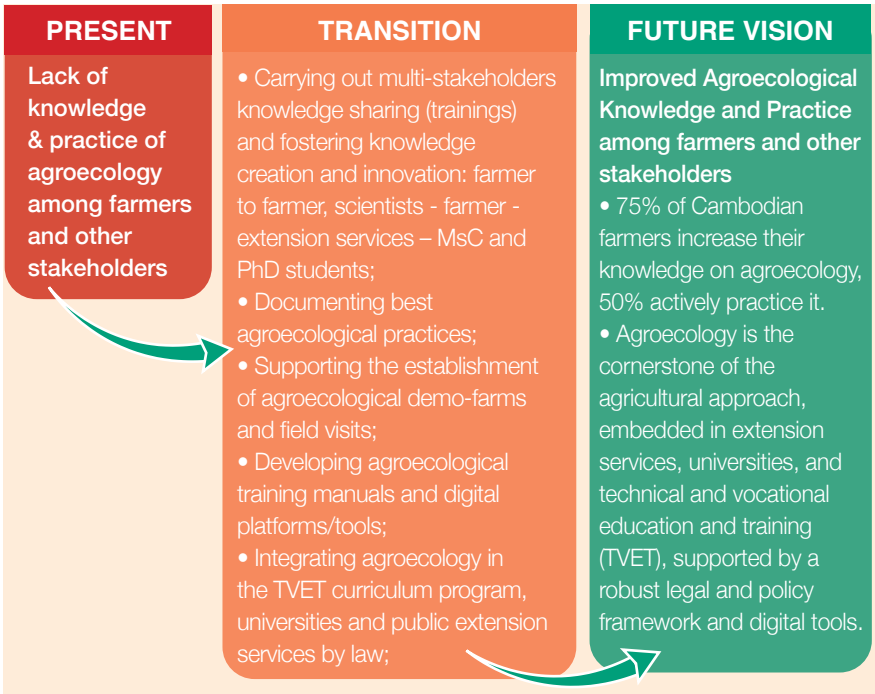
- Cambodia takes a pioneering role in sustainable resource management. Wastewater from factories and urban areas undergoes treatment, mitigating adverse effects on agriculture.
- Technological innovations harness ecosystem services, emphasizing the promotion of renewable energy.
- Commitment to efficient water irrigation, infrastructure, and fair governance guarantees stable access to water and reduces maintenance costs for agricultural production for all including youth, women, small-scale farmers.

This vision for 2040 embodies an unwavering commitment to agroecology as a catalyst for transformative change, ushering in a future for Cambodia characterized by prosperity, equity, and sustainability.

VI. KEY PATHWAYS FOR THE TRANSITION IN CAMBODIA

After discussing the desired future vision for Cambodia by 2040, participants agreed to focus on four key opportunities, obstacles, and/or trends to define the transition in greater detail. The group voted on these priorities based on their potential for high transformative impact in the short-term.

The first pathway addresses lack of knowledge and practice of agroecology among farmers and other stakeholders . It envisions improved agroecological knowledge and practice by reaching 75% of Cambodian farmers knowing agroecology and 50% practicing it by 2040. Besides, by law, agroecology becomes the common approach used by extension services, universities, and TVET. To attain the desired future, it is essential to promote multi-stakeholder knowledge sharing, document best agroecological practices, support the creation of agroecological demonstration farms, develop training resources, and mandate the integration of agroecology in educational programs and public extension services.



The second pathway centers on confronting the lack of premium prices for agroecological products. It projects market localization based on principles of circularity, fairness, self-sufficiency, and affordability. The ultimate target is to enhance the living conditions of half of Cambodia's farming population. To realize this desired future, it is essential to support the production and sale of agroecological inputs, initiate efforts to sell products through shorter market circuits, and develop participatory strategies for marketing products and processing agroecological foods.

PRESENT	TRANSITION	FUTURE VISION
Lack of premium price for agroecology products	• Supporting the production and selling of locally produced agroecological inputs of individual farmers, cooperatives and small-business to reduce cost of production and waste; • Creating differentiated physical space in wet markets for agroecological products at the district level; • Supporting the creation of farmers' markets: farmers selling their products directly to consumers; • Developing participatory approaches (i.e: Participatory Guarantee Systems – PGS) between consumers and producers to: - 'labellize' products improving consumers' access to information and value of agroecological products; - reduce intermediaries, waste and costs of distribution; - set up fair prices; • Setting up retailers specialized in local agroecological products; • Investing in digital marketing of agroecological products; • Developing techniques and set up of local agroecological food processing businesses;	**Localization of Markets Guided by Principles of Circularity, Fairness, Self-Sufficiency, and Affordability:** Increased localization of agroecological inputs production, heightened farming efficiency, and local processing of food and waste collectively reduce costs and waste. This translates into augmented revenues and productivity for farmers, improving living conditions for half of Cambodia's farming population, including enhanced access to education, healthcare, and transportation. Concurrently, consumers develop a greater appreciation for agroecological products.

The third pathway addresses the issue of lack of specific policy incentives for agroecological farmers with the aim of reversing the situation in the future. To achieve this, it is necessary to integrate key agroecological stakeholders and methodologies into existing policy dialogue platforms, institute financial incentives for farmers transitioning to agroecology, and enact legal obligations for the acquisition of agroecological products through public procurement.

PRESENT	TRANSITION	FUTURE VISION
Lack of specific policy incentives for agroecological farmers;	• Integrating key agroecological actors (i.e: farmers, NGOs, etc..) and approaches into existing policy dialogue platforms and Forums such CASIC, ALISEA, Farmer's Forum, CACA, etc. • Setting up financial mechanisms to incentivize farmers transition to agroecology. This could entail: responsible private micro-finance credits, public loans with low interests and subsidies for agroecological inputs and production, future tax exemptions/ reduction and low-cost insurance/saving groups for agroecological cooperatives, higher taxing for chemical agricultural production. • Establishing legal mandates for public procurement commitments to purchase agroecological products, including for school feeding programs, public events, and government ministries' food procurement	**Establishment of Agroecology-Friendly Policies** • Comprehensive policy measures provide unwavering support for all facets of the agroecological food system.

VII. NEXT STEPS TOWARDS AGROECOLOGY IN CAMBODIA

The identified shared future vision serves as a guiding framework for participants in Cambodia's agricultural sector, encompassing both public and private actors. It offers a clearer direction and facilitates the formulation of well-suited plans for transitioning towards agroecology. The collaborative development of this shared vision and its pathways will also equip policymakers with a more substantial foundation for crafting pertinent policies.

In the framework of the ASSET project and the ALiSEA network, the 6 designed pathways to the transition will:

- Contribute to shape ASSET partners operations in Cambodia
- Guide the design of the ALiSEA national action plan;
- Guide the priority topics for the next Small Grant Call for proposals of the ALiSEA network;
- Inspire ALISEA members' strategies and projects.

Source: ASSET, 2022. Report of the National foresight and theory of change workshop in Cambodia, 18 -19 October 2022, in Phnom Penh. Agroecology and Safe food System Transitions (ASSET) project.

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GROW SUTSTAINABLY, EAT HEALTHY,
ADOPT AGROECOLOGY

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