

## Key Messages:

- This brief summarises the results of ERIA's scoping study, which identifies priority technology and policy areas for realising sustainable agriculture and supports the development of an action plan for implementing the ASEAN Guideline for Sustainable Agriculture.
- Recommendations from the study include:
  1. Consideration of supportive policies and actions tailored to CLMV countries to bridge gaps in the adoption of sustainable initiatives.
  2. Prioritisation of key strategies from the Guidelines by ASEAN Member States for the development of regional and national action plans.
  3. Inclusion of mechanisms for bolstering financial support and capacity building for stakeholders in the action plan.
  4. Adoption of practical actions by ASEAN Member States with specific frameworks, including feasible targets, timelines, and potential collaboration partners for monitoring and evaluation.
  5. Exploration of pilot projects focused on sustainable actions, taking into account their outcomes and long-term sustainability.

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## Building and Enhancing Sustainable Agriculture and Food Systems in ASEAN: A Preliminary Scoping Study

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*'ASEAN Regional Guidelines for Sustainable Agriculture in ASEAN' were adopted at the 44th Meeting of the ASEAN Ministers on Agriculture and Forestry on 25 October 2022. The successful implementation of these guidelines necessitates the development of a practical action plan. To assist ASEAN in implementing these guidelines and provide valuable insights for the action plan's development, the Economic Research Institute for ASEAN and East Asia conducted a preliminary scoping study. This study aimed to identify key technology and policy areas, assess the current status of sustainable agriculture, and recommend initiatives for achieving sustainable and circular agriculture. The study findings highlight the prevalence of specific initiatives, significant disparities in initiatives between Cambodia, Lao People's Democratic Republic, Myanmar, and Viet Nam (CLMV) and non-CLMV countries, and prioritised strategies amongst the 28 key strategies outlined in the Guidelines. The action plan should outline practical actions aligned with the priority strategies, complete with achievable targets and timelines.*

### The Need for Sustainable Agriculture and Food Systems in the ASEAN Region

The food and agriculture sectors are strategic for the Association of Southeast Asian Nations (ASEAN) economy, providing a major source of employment opportunities and income for a large population of the region. ASEAN is an important exporter and importer of various agricultural and food products (OECD/FAO, 2022). More importantly, it contributes to ensuring national and regional food security and nutrition in ASEAN. However, agriculture is facing a multitude of persistent and immediate challenges, including a continually expanding demand for food driven by steady population growth, the escalating impact of climate change, the devastating repercussions of the coronavirus disease (COVID-19) pandemic, and heightened global political tensions. Furthermore, the region is grappling with diminished labour resources, the excessive use of agrochemical inputs, and dwindling water availability, all of which pose significant threats to the long-term sustainability of agriculture (ADB, 2021). Some of these challenges have already had detrimental effects on the region's food security situation. Urgent action is imperative to address these multifaceted challenges and expedite the transition of agriculture and food systems towards enhanced sustainability and resilience.

### ASEAN Guidelines and Action Plan for Sustainable Agriculture and Food Systems

'ASEAN Regional Guidelines for Sustainable Agriculture in ASEAN: Developing Food Security and Food Productivity in ASEAN with Sustainable and Circular Agriculture' (hereinafter, referred to as 'the Guidelines') was adopted at the 44th Meeting of the ASEAN Ministers on Agriculture and Forestry on 25 October 2022 (ASEAN Secretariat, 2022a). The Guidelines outline five principles and recommend 28 key strategies to

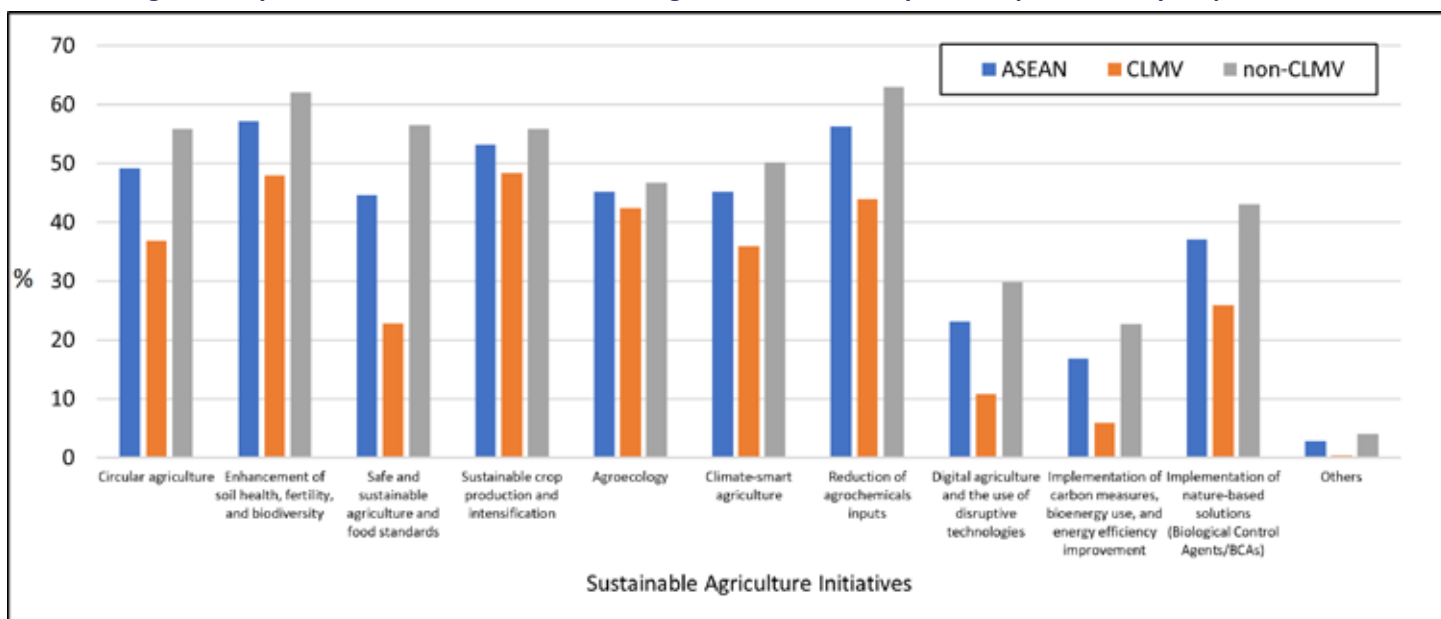
pursue sustainable agriculture in the region. These principles and key strategies provide a basis for developing regional and national policies, strategies, programmes, regulations, and incentives that will guide the transformation of agriculture to be more productive, economically viable, environmentally sound, socially inclusive, and sustainable. For the effective implementation of the Guidelines, an action plan is expected to be developed. To support the implementation of the guidelines and give inputs to the action plan, ERIA conducted a scoping study to identify key priority technology and policy areas in each country and the region as a whole. In this brief, the summary and recommendations are introduced.

### Summarised Results

Data are collected mainly by the interview using the pre-set questionnaire for 774 respondents in ASEAN countries. In the following part, the key results are shown.

1. Various types of actions and initiatives on sustainable agriculture and food systems (see horizontal axis of Figure 1) have been implemented in the region. However, the degrees of frequency and dissemination vary amongst the actions and initiatives. ‘Enhancement of soil health, fertility, and biodiversity’, ‘Sustainable crop production and intensification’, and ‘Reduction of agrochemical inputs’ are the most frequent occurrences of the top three initiatives in the ASEAN region (Figure 1). On the other hand, actions and initiatives with emerging innovative technology such as ‘Digital agriculture and the use of disruptive technologies’ have yet to be disseminated well in the region. The gaps in dissemination of some initiatives on sustainable agriculture between CLMV and non-CLMV countries are remarkable; examples include ‘Safe and sustainable agriculture and food standards’, ‘Digital agriculture and the use of disruptive technologies’, and ‘Implementation of carbon measures, bioenergy use, and energy efficiency improvement’ (Figure 1).

Figure 1. Key Actions/Initiatives on Sustainable Agriculture and Food Systems Implemented by Respondents



ASEAN = Association of Southeast Asian Nations; CLMV = Cambodia, Lao People’s Democratic Republic, Myanmar, Viet Nam. Source: Authors.

2. Amongst the 28 key strategies outlined in the Guidelines, ‘Improving soil health (Strategy 1)’ is highly prioritised in both the short term and mid-long term. Apart from that, in the short term, priority tends to be given to economic profitability-oriented strategies such as ‘Connecting smallholders to markets (9)’, ‘Facilitating funding with productive resources, finance, and services (8)’ and ‘Collaboration along the agriculture and food chains (4)’.

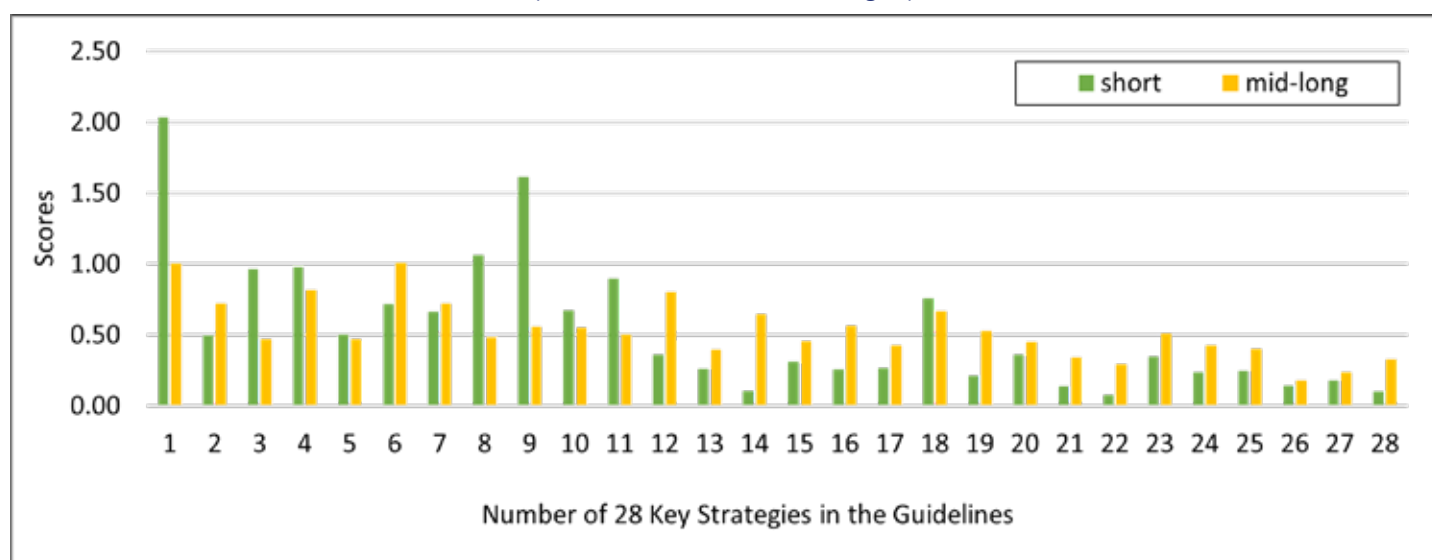
In the mid-long term, broader and environment-oriented strategies including ‘Ensuring food security (6)’, ‘Encouraging more research and development on sustainable and circular agriculture and food production (12)’ and ‘Reducing the reliance on the use of agrochemicals in agriculture, balancing the use of organic and chemical fertilisers (18)’ and ‘Reduction of greenhouse gases from agriculture-related activities (2)’ are also prioritised (Figure 2).

3. To implement the Guidelines, ‘Finance and market access’, ‘Resources’, and ‘Education and capacity building’ are the main challenges (Figure 3).

### Recommendations for Developing the Action Plan

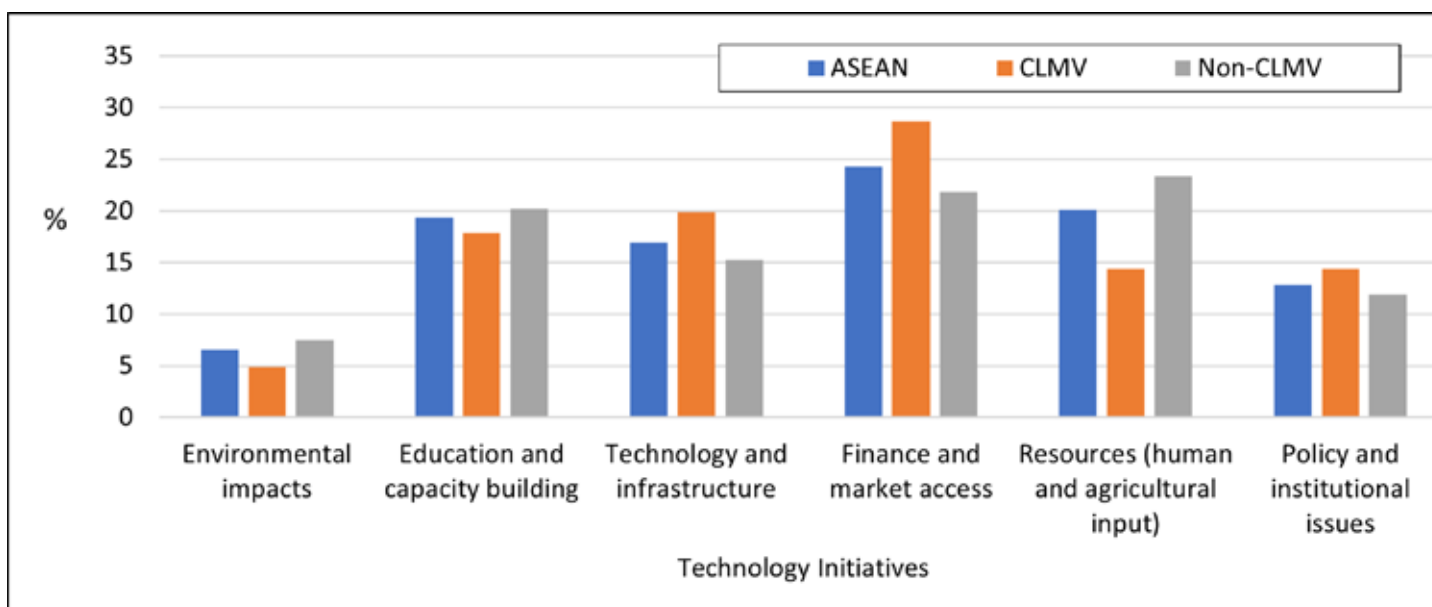
At the 44th Meeting of the ASEAN Ministers on Agriculture and Forestry, it was agreed to formulate a roadmap for implementing the ASEAN Guidelines for Sustainable Agriculture. However, the ongoing discussions are now focused on the development of an action plan, under the leadership of the ASEAN Secretariat. The recommendations arising from this scoping study to support creation of this action plan are as follows:

**Figure 2. Calculated Scores for 28 Key Strategies**  
(see Annex for list of the strategies)



Short-term: Within 5 years; Mid-long-term: Beyond 5 years.  
Source: Authors.

**Figure 3. Challenges to Implementing the Guidelines**



ASEAN = Association of Southeast Asian Nations; CLMV = Cambodia, Lao People’s Democratic Republic, Myanmar, Viet Nam.  
Source: Authors.

1. ASEAN Member States have already initiated various sustainable actions and initiatives within their agri-food systems to some extent. Nonetheless, noticeable disparities in the adoption of these actions and initiatives exist between CLMV and non-CLMV countries. Therefore, it is imperative to consider the formulation of supportive policies and actions tailored to the specific needs of CLMV countries.
2. Amongst key strategies outlined in the Guidelines, short- and mid-long term priority strategies have been identified for both individual countries and the entire region. These selected strategies can serve as the guiding principles for the development of regional and national action plans.
3. Common challenges obstructing the implementation of the guidelines have been identified. To overcome these challenges, the action plan should include mechanisms for financing sustainable actions in agri-food systems and capacity building initiatives for relevant stakeholders.
4. Actions specified in the action plan should be aligned with the key strategies outlined in the Guidelines. Additionally, the plan should include details such as baseline assessments, key performance indicators, achievable targets, timelines for implementation, and potential partners for collaboration to facilitate effective monitoring and evaluation.

5. To test and validate the feasibility and impact of prioritised sustainable actions, implementation of pilot projects is desirable. These projects should be selected based on their relevance, efficiency, effectiveness, regional ownership, potential impact, and long-term sustainability.

In summary, development of the action plan is a significant step in implementing sustainable agriculture practices in ASEAN Member States. The recommendations from this scoping study provide valuable guidance for crafting a comprehensive and effective action plan that addresses the unique needs and challenges of each country in the region.

## References

ADB (2021), Asian Development Outlook 2021. Theme Chapter: Transforming Agriculture in Asia. <https://www.adb.org/sites/default/files/publication/726556/ado2021-update-theme-chapter.pdf>

ASEAN Secretariat (2022a), ASEAN Regional Guidelines for Sustainable Agriculture in ASEAN: Developing Food Security and Food Productivity in ASEAN with Sustainable and Circular Agriculture. Jakarta: ASEAN Secretariat.

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## Annex

The 28 key strategies outlined in the 'ASEAN Regional Guidelines for Sustainable Agriculture in ASEAN: Developing Food Security and Food Productivity in ASEAN with Sustainable and Circular Agriculture' are as follows:

1. Improving overall soil health: Reducing over-fertilisation of the soil base, applying of targeted organic fertilisers and amendments, and reducing the over application of agrochemicals to meet optimum soil productivity.
2. Reduction of greenhouse gases from agriculture-related activities.
3. Closing nutrient cycles/loops and valorisation of agricultural waste biomass and food wastes into cost-effective feeds and fertilisers.
4. Collaboration along the agriculture and food chains.
5. Improving biodiversity.
6. Ensuring food security.
7. Promoting the use of smart and precision agriculture systems in sustainable food production.

8. Facilitating funding with productive resources, finance, and services.
9. Connecting smallholders to markets.
10. Encouraging diversification of production and income.
11. Building farmers' and food production personnel's knowledge base and developing their capacity.
12. Encouraging more research and development on sustainable and circular agriculture and food production.
13. Promoting the set-up of new sustainable and circular initiatives.
14. Aligning ASEAN agricultural standards and those of our major export markets.
15. Strategising to replace highly hazardous pesticides, broad-spectrum pesticides, and neonicotinoids in ASEAN agriculture.
16. Encouraging private sector research participation in new, modern, smart technologies in sustainable food production.
17. Developing/setting aside the necessary funding for the research and development of practical sustainable and circular agriculture technologies.
18. Reducing the reliance on the use of agrochemicals in agriculture, balancing the use of organic and chemical fertilisers.
19. Encouraging the development of sustainable, environmentally friendly farming input alternatives within ASEAN.
20. Encouraging the participation and training of targeted marginalised communities to be involved in sustainable agriculture systems.
21. Improving the participation of women and youth in sustainable smart systems.
22. Adopting policies and strategies to reduce the development of antimicrobial resistance within ASEAN.
23. Reducing the environmental impact of agricultural and food production.
24. Improving the health and well-being of the farming community in ASEAN.
25. Supporting and setting up the support policies, rules, and regulations necessary for the development of the entire sustainable and circular industry.
26. Discouraging and disallowing any further clearing of primary jungles, mangrove areas, peat lands, and other areas deemed environmentally valuable.
27. Developing and encouraging various sustainable urban agriculture initiatives to provide food within urban areas.
28. Developing new sustainable and circular agriculture legislative frameworks.

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