Dorod Group Berhad

Submission to the Review of Australia's Free Trade Agreements with Southeast Asia

Practical Recommendations from a Regional Agritech Innovator

1. Introduction

Dorod Group Berhad welcomes the opportunity to contribute to the Department of Foreign Affairs and Trade (DFAT) review of Australia's Free Trade Agreements (FTAs) with Southeast Asia. As an agritech company actively developing and deploying sustainable agricultural technologies across Southeast Asia and other emerging markets, Dorod offers practical industry insights on how trade frameworks can better support innovation in modern agriculture.

Dorod Group Berhad is a Malaysian-based agritech and green technology company established in 2019. The company focuses on developing scalable solutions for **sustainable urban farming, climate-resilient food production, and ESG-aligned agricultural infrastructure**. Its core innovation, the **Aeroponics Arrow Tower**, is an advanced vertical farming system designed to produce high-quality crops using significantly less water, land, and chemical inputs than conventional agricultural systems.

The Aeroponics Arrow Tower has been developed as a modular and scalable technology capable of operating in a wide range of environments including urban developments, rooftops, commercial buildings, tourism destinations, and land-constrained regions. By enabling decentralized food production, the technology contributes to **urban food resilience, reduced supply chain dependency, and more sustainable resource utilisation**.

Dorod's work reflects broader global shifts toward **climate-smart agriculture, digital farming systems, and resilient food infrastructure**. Through pilot projects, partnerships, and technology collaboration initiatives, the company is exploring opportunities to deploy its solutions across Southeast Asia and other regions where food security and sustainable agriculture are strategic priorities.

Dorod Group Berhad was founded by **Prof. Dr. Hamed Faghiri**, an agritech entrepreneur and researcher working at the intersection of sustainable agriculture, innovation ecosystems, and ESG-driven development. His work has focused on advancing practical solutions for urban food production and sustainable agricultural technologies that can operate efficiently within modern cities and climate-sensitive environments.

Through Dorod's activities, Prof. Dr. Faghiri has engaged with stakeholders across academia, industry, and public institutions to promote scalable agricultural innovation aligned with global sustainability and food security objectives.

Based on Dorod's practical experience deploying agritech systems across multiple jurisdictions, this submission outlines key areas where existing trade frameworks could be modernised to better support emerging agricultural technologies and sustainable food systems.

2. Operation of Existing FTAs

(Including IA-CEPA, MAFTA, SAFTA, TAFTA, AANZFTA, CPTPP, and RCEP)

Australia's current network of bilateral and regional FTAs provides an important foundation for trade and investment cooperation with Southeast Asia.

What Is Working

Several elements of existing agreements are working effectively for businesses operating across the region.

Key strengths include:

• **Tariff reductions on agricultural goods and manufactured components**, which support regional supply chains and technology transfer.
• **Investment protection frameworks**, particularly under agreements such as IA-CEPA and CPTPP, which provide greater confidence for cross-border investment and technology collaboration.
• **Regional integration mechanisms under RCEP**, which help reduce fragmentation across ASEAN markets and simplify trade relationships.

These agreements have significantly strengthened economic engagement between Australia and Southeast Asian economies and provide a strong platform for further cooperation.

3. Challenges Identified from an Agritech Deployment Perspective

While tariff barriers have been reduced, businesses deploying modern agricultural technologies continue to encounter challenges related to regulatory frameworks and non-tariff barriers.

3.1 Non-Tariff Barriers and Regulatory Inconsistencies

For emerging agricultural technologies, non-tariff barriers remain a significant constraint.

Examples include:

• Certification requirements that vary substantially across ASEAN jurisdictions
• Inconsistent classification of agricultural equipment and agritech infrastructure
• Regulatory frameworks that do not adequately account for new farming technologies

Urban farming systems such as vertical farming and aeroponics often fall outside traditional agricultural regulatory categories and may instead be classified under multiple regulatory frameworks, including construction, agriculture, and food production.

This lack of regulatory alignment increases compliance costs and slows technology deployment.

3.2 Limited Recognition of Sustainable and Urban Agriculture

Most existing trade agreements were negotiated during a period when traditional agricultural production dominated regional food systems.

As a result, current agreements do not sufficiently address emerging agricultural technologies, including:

• vertical farming
• aeroponic farming systems
• digital agriculture platforms
• controlled-environment and urban farming infrastructure
• ESG-certified agricultural production systems

These technologies are increasingly important for addressing food security challenges in land-constrained and climate-vulnerable regions across Southeast Asia.

3.3 Digital Agriculture and Services Gaps

Modern agricultural systems are increasingly integrated with digital technologies, including:

• IoT-based environmental monitoring
• AI-enabled crop management systems
• precision irrigation and resource optimisation
• sustainability and ESG reporting platforms

However, current trade agreements provide limited alignment in areas such as:

• cross-border data governance
• digital infrastructure deployment
• interoperability of sustainability reporting systems
• regulatory frameworks for smart farming technologies

Improving these areas would support the development of **digitally enabled agricultural ecosystems across the region**.

4. Bilateral and Regional Agreements

Regional agreements such as **RCEP and CPTPP** play an important role in reducing fragmentation and expanding market access across Southeast Asia.

However, bilateral agreements often provide more detailed provisions and clearer implementation mechanisms.

Recommendation

Australia may consider a **two-tier strategy**:

• Utilize regional agreements such as RCEP to support broad market integration.
• Use bilateral agreements to pilot advanced provisions addressing emerging sectors such as sustainable agriculture, digital farming technologies, and climate-resilient food systems.
• Successful provisions could subsequently be incorporated into regional frameworks.

This approach enables policy innovation while maintaining regional alignment.

5. Opportunities to Improve Market Access

5.1 Modernising Rules of Origin for Integrated Agritech Systems

Modern agricultural technologies are increasingly modular and integrated.

For example, systems such as the Aeroponics Arrow Tower combine:

• structural components
• irrigation and nutrient delivery systems
• environmental sensors and IoT devices
• digital monitoring and control platforms

Traditional rules of origin frameworks do not always adequately reflect this integrated design.

Recommendation

• Allow greater flexibility in rules of origin for modular green technologies
• Recognise integrated sustainable agriculture systems as a distinct category within trade frameworks

5.2 Addressing Non-Tariff Barriers for Agritech Equipment

Agritech companies often face separate regulatory approval processes in each ASEAN country, which can slow the deployment of technologies intended to support food security and sustainability.

Recommendation

• Establish mutual recognition mechanisms for agritech certification standards
• Introduce fast-track approval pathways for climate-resilient agricultural technologies
• Consider establishing a **Green Technology Corridor** within upgraded trade frameworks

Such measures would accelerate adoption of sustainable agricultural infrastructure.

5.3 Improving Investment Facilitation

Urban farming and sustainable agriculture infrastructure projects often encounter regulatory challenges related to licensing, land use classification, and foreign ownership requirements.

Recommendation

• Simplify licensing procedures for food security infrastructure projects
• Recognise urban farming systems as **strategic food infrastructure**
• Facilitate investment in sustainable agriculture technologies through clearer regulatory pathways

6. Modernising Agreements for Future Trade

6.1 Sustainable Agriculture Provisions

Current agreements would benefit from the inclusion of dedicated provisions addressing sustainable and climate-resilient agriculture.

Such provisions could support cooperation in areas including:

• urban and vertical farming technologies
• water-efficient agricultural systems
• climate-adaptive food production models
• sustainable resource management

6.2 Digital Agriculture and Data Governance

To support the development of smart farming systems, modernised agreements could include provisions related to:

• cross-border agricultural data flows
• cybersecurity standards for digital agriculture infrastructure
• interoperability of sustainability and ESG reporting systems

6.3 ESG and Carbon Alignment

As countries increasingly pursue net-zero commitments, trade frameworks can play an important role in supporting low-emission agricultural systems.

Potential areas of cooperation include:

• harmonised carbon measurement methodologies
• agricultural decarbonisation initiatives
• recognition of low-emission food production systems
• access to green finance for sustainable agricultural infrastructure

7. Progressive Trade Issues

7.1 Net-Zero Transition

Australia has significant potential to contribute to the development of climate-resilient agriculture through innovation in sustainable materials, renewable energy integration, and advanced agricultural technologies.

Trade frameworks can support collaboration in these areas through joint research initiatives and technology partnerships.

7.2 Economic Resilience

Recent global disruptions have highlighted vulnerabilities in long-distance food supply chains.

Decentralised food production systems, including urban farming technologies, can strengthen regional food resilience and reduce supply chain risks.

7.3 Inclusive and Community-Focused Agriculture

Emerging agricultural technologies may also support food production in remote and underserved communities.

Opportunities exist to encourage collaborative innovation programs supporting community-based agriculture and local food production initiatives.

8. Recommendations to DFAT

Based on Dorod's operational experience deploying modern agricultural technologies, the following initiatives could support future trade cooperation:

1. Establish an **Australia–ASEAN Sustainable Agritech Working Group**
2. Introduce a **Green Technology Fast-Track Mechanism** for sustainable agriculture infrastructure
3. Develop **harmonised ESG and sustainability standards for agricultural technologies**
4. Recognise smart farming systems as **strategic food infrastructure** within trade frameworks
5. Incorporate **digital agriculture provisions in future FTA upgrades**
6. Align trade policy development with **Australia's Southeast Asia Economic Strategy to 2040**

9. Strategic Opportunity for Australia

Southeast Asia is projected to become the **world's fourth-largest economic region by 2040**.

Australia has an opportunity to strengthen its position as a partner in the development of sustainable food systems across the region by supporting:

- innovation in climate-resilient agriculture
- deployment of sustainable agritech infrastructure
- collaboration in digital agriculture and smart farming systems

Such cooperation would complement existing trade relationships while supporting regional food security and sustainability objectives.

Closing Statement

Dorod Group Berhad considers Australia's FTA review an important opportunity to modernise trade frameworks to reflect the evolving realities of agricultural production, digital technology integration, and climate transition.

By incorporating provisions that support sustainable agriculture, digital farming technologies, and ESG-aligned investment, future agreements can play an important role in enabling resilient and sustainable food systems across Southeast Asia.

Dorod Group Berhad welcomes continued dialogue with Australian stakeholders and looks forward to exploring opportunities for collaboration in sustainable agriculture and food security innovation.