

# Study on International Standards for Agriculture Financing

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APEC Economic Committee

May 2026



**Asia-Pacific  
Economic Cooperation**





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*The information and recommendations provided in this study were developed using information available at the time and through dialogue with economies.*

*The views expressed in this document are those of the authors and do not necessarily represent those of the APEC member economies. The recommendations provided may be further considered by the APEC Economic Committee.*

# Table of Contents

<b>I. Introduction</b> .....	4
<b>II. Background</b> .....	5
<b>A. Role of agricultural finance in achieving food security objectives</b> .....	5
<b>B. Access to credit for various types of agribusinesses</b> .....	6
<b>C. Typical pre- and post-harvest agricultural finance products</b> .....	8
<b>III. Key International Standards and Guidance Relevant to Agricultural Finance</b> .....	9
<b>A. General secured transactions standards</b> .....	9
<b>B. Product/asset-specific standards</b> .....	11
<b>D. Status of implementation in APEC</b> .....	12
<b>IV. Issues in the APEC Region</b> .....	20
<b>A. UNCITRAL Model Law on Secured Transactions</b> .....	20
<b>B. UNCITRAL-UNIDROIT Model Law on Warehouse Receipts</b> .....	21
<b>C. UNIDROIT Model Law on Leasing</b> .....	23
<b>D. Cape Town Convention/MAC Protocol</b> .....	25
<b>E. Regulatory considerations</b> .....	27
<b>V. Conclusion: Toward a Holistic Implementation Strategy</b> .....	29

## I. Introduction

This Study is designed to assist APEC Member Economies in implementing international standards in agricultural finance, including access to credit, inputs, and equipment. Several international instruments have been designed to enhance agricultural finance and food security, including the United National Commission on International Trade Law (UNCITRAL) Model Law on Secured Transactions,<sup>1</sup> the International Institute for the Unification of Private Law (UNIDROIT) Model Law on Leasing,<sup>2</sup> the UNIDROIT Convention on International Interests in Mobile Equipment (Cape Town Convention)<sup>3</sup> and the Protocol to the Cape Town Convention on Matters Specific to Mining, Agricultural and Construction Equipment (the “MAC Protocol”),<sup>4</sup> and the UNCITRAL-UNIDROIT Model Law on Warehouse Receipts.<sup>5</sup> These instruments permit flexibility in adapting them to the specific needs of APEC Member Economies.

This Study is part of the APEC Economic Committee’s (EC) long-standing effort to help member economies enhance their business- and investment-enabling legal environments. The APEC Ease of Doing Business (EoDB) initiative—which includes financial services (credit and secured transactions reform) and dispute resolution—has been central to this effort. The Study is also directly linked to the EC Strengthening the Economic Legal Infrastructure Friends of The Chair (SELI FoTC). The SELI FoTC’s activities include promoting the implementation of international instruments (including those of the UNCITRAL, UNIDROIT, and the Hague Conference on Private International Law (HCCH)) in areas of secured transactions, insolvency, and the enforcement of contracts. The Study will also help facilitate the implementation of all the pillars of the Improved and Enhanced APEC Agenda for Structural Reform (IEAASR) endorsed by the Ministers Responsible for Structural Reform in October 2025.<sup>6</sup>

The Study also builds on previous APEC EoDB and SELI initiatives. The EC held policy dialogues at EC 2 in 2023 on the MAC Protocol and at EC 2 in 2024 on international instruments promoting secured finance reform for food security. The EC Chair concluded that “such international instruments could be a useful tool for economies for structural reform and noted the importance of capacity building and

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<sup>1</sup> UNCITRAL Model Law on Secured Transactions (2016), [https://uncitral.un.org/en/texts/securityinterests/modellaw/secured\\_transactions](https://uncitral.un.org/en/texts/securityinterests/modellaw/secured_transactions).

<sup>2</sup> UNIDROIT Model Law on Leasing (2008), <https://www.unidroit.org/instruments/leasing/model-law/>.

<sup>3</sup> UNIDROIT Convention on International Interests in Mobile Equipment (2001), <https://www.unidroit.org/instruments/security-interests/cape-town-convention/>.

<sup>4</sup> Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Mining, Agricultural and Construction Equipment (2019), <https://www.unidroit.org/instruments/security-interests/mac-protocol/>.

<sup>5</sup> UNCITRAL-UNIDROIT Model Law on Warehouse Receipts (2024), <https://uncitral.un.org/en/mlwr>.

<sup>6</sup> APEC Ministerial Meeting on Structural Reform, Incheon, Korea, Joint Statement, 22-23 October 2025, para. 8, <https://www.apec.org/meeting-papers/sectoral-ministerial-meetings/structuralreform/2025-apec-ministerial-meeting-on-structural-reform>. The new pillars are: (i) Enabling Fair, Market-Oriented Competition; (ii) Enabling Environment for Doing Business; (iii) Promoting Innovation and Digitalisation; and (iv) Empowering All to Achieve Their Economic Potential for Sustainable Economic Growth. The Fourth APEC Ease of Doing Business Action Plan as approved by the Ministers is attached as Annex 2 to the Joint Statement of the Ministers.

cross-fora collaboration for structural reform work in such areas.”<sup>7</sup> The APEC Workshop on Secured Transactions Reform: Developing Tailored Approaches for Common Law and Civil Law Jurisdictions (APEC Project: EC 04 2022A) recommended that the EC “facilitate economic growth and improve food security [by holding] Workshops for APEC Member Economies to examine the operation of international instruments and how their implementation will improve domestic frameworks.”<sup>8</sup>

This Study is based on the authors’ research and experience with legal reforms in member economies, as well as comments from APEC economies on a draft of this Study. This Study was also reviewed at an APEC workshop on Secured Finance to Facilitate Sustained Economic Growth and Food Security held in Tokyo, 8-10 October 2025 (APEC Project: EC\_105\_2024A).<sup>9</sup> The recommendations from that Workshop are included in the Conclusion. This Study was endorsed by the APEC EC.

## **II. Background**

This section of the study highlights the importance of finance in achieving food security, financial access, business growth, and sustainability. While access to finance depends on many factors, enabling legal systems plays a central role. International standard-setters have invested significant resources into developing modern and effective legal models for economies to implement into their domestic legal frameworks. This section finally outlines the types of pre- and post-harvest credit products made possible by modern legal systems.

### **A. Role of agricultural finance in achieving food security objectives**

Increasing agricultural financing is a long-term solution to address hunger, poverty, unemployment, and forced migration. According to World Bank estimates, the global food supply will need to increase by more than 50 percent by 2050 to feed a growing population.<sup>10</sup> Worldwide, 500 million smallholder farmers produce 80 percent of the world’s food. However, most of them remain in subsistence farming. Only one in 10 has access to finance.<sup>11</sup>

The Asian Development Bank (ADB) observed at the APEC EC October 2025 Workshop that, despite growing prosperity, hunger and malnutrition persist in Asia and

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<sup>7</sup> Report by the Chair of the Economic Committee on the Second Economic Committee Meeting 2024, 2024/SOM/016 at 5, [https://mddb.apec.org/Documents/2024/SOM/SOM3/24\\_som3\\_016.pdf](https://mddb.apec.org/Documents/2024/SOM/SOM3/24_som3_016.pdf).

<sup>8</sup> See Workshop on Secured Transactions Reform: Developing Tailored Approaches for Common Law and Civil Law Jurisdictions, November 2023 at 38.

<sup>9</sup> For the Workshop Report see APEC Workshop on Secured Finance to Facilitate Sustainable Economic Growth and Improve Food Security, APEC Project EC 105 2024A, December 2023 [hereinafter APEC Workshop on Secured Finance to Improve Food Security]. The Workshop Report can be found in the APEC Meetings Document Database.

<sup>10</sup> World Bank, Agriculture Finance & Agriculture Insurance, August 31, 2022, <https://www.worldbank.org/en/topic/financialsector/brief/agriculture-finance>.

<sup>11</sup> Remarks by World Bank Group President Ajay Banga at the AgriConnect Flagship Event during the 2025 Annual Meetings, October 14, 2025, <https://www.worldbank.org/en/news/speech/2025/10/14/remarks-by-world-bank-group-president-ajay-banga-at-the-agriconnect-flagship-event-during-the-2025-world-bank-imf-annual>.

the Pacific. Half of the world's 600 million hungry people live in the region. Extreme weather events and water stress are having severe adverse impacts on food production and supply across Asia and the Pacific. Ensuring stable and affordable food supplies is central to keeping millions out of extreme poverty.<sup>12</sup>

Agricultural finance facilitates several objectives, including fuelling the growth of agricultural enterprises and their transition from subsistence to market-oriented production, providing access to modern and efficient equipment, and alleviating food insecurity. Modern laws facilitate the achievement of these objectives, providing legal certainty and reducing the cost for credit providers, whether financial institutions, lessors, or input providers. These laws include: (i) a secured transactions law that provides for an electronic collateral registry, (ii) a warehouse receipts law with rules governing the issue and transfer of negotiable warehouse receipts, (iii) leasing laws governing various types of equipment leases, and (iv) international treaties for the financing and leasing of high-value agricultural equipment. This Study provides an overview of the relevant international standards, highlighting the approaches that facilitate agricultural financing and assessing the degree of alignment of APEC economies with those standards at a high level. The primary purpose is to enable APEC economies to identify (i) the degree of alignment of their domestic frameworks with these international standards, (ii) the gaps they should consider closing, and (iii) the measures that would upgrade their domestic frameworks.

## **B. Access to credit for various types of agribusinesses**

APEC has long recognized that increasing access to finance is necessary for the deployment of new technologies and modern equipment in Member Economies to boost agricultural productivity and ensure food security.<sup>13</sup> The APEC Implementation Plan for the Food Security Roadmap Towards 2030, for example, states that “economies are encouraged to increase access to credit [...] to facilitate the use of innovative technologies for the whole food value chain, including those that improve efficiency and sustainability [such as] start-ups and small-scale producers in the agri-food and fisheries sectors.”<sup>14</sup>

The relationship between financial access and agricultural production has been amply documented.<sup>15</sup> To sustainably increase long-term production, investments need to be made in high-quality inputs, including seeds, fertilizers, and pesticides, as well as tools, equipment, and machinery.<sup>16</sup> APEC Member Economies have issued financial access strategies aimed at expanding access to credit for participants in the agricultural sector. Such strategies aim to mitigate challenges exacerbated by

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<sup>12</sup> APEC Workshop on Secured Finance to Improve Food Security, *supra* note 9 at 19 (Thomas Clark, ADB).

<sup>13</sup> See Secured Finance to Facilitate Sustainable Economic Growth and Improve Food Security (APEC, 2024), <https://aimp2.apec.org/sites/PDB/Lists/Proposals/DispForm.aspx?ID=3600>.

<sup>14</sup> The Food Security Roadmap Towards 2030 (APEC), [https://www.apec.org/meeting-papers/sectoral-ministerial-meetings/food-security/2021\\_food\\_security/annex](https://www.apec.org/meeting-papers/sectoral-ministerial-meetings/food-security/2021_food_security/annex).

<sup>15</sup> See Accessing Finance to Invest in Agrifood a Review of Experimental Evidence (FAO, 2024) (“experimental and quasi-experimental evidence highlights that access to credit provides farmers and SMEs with opportunities to invest in new technologies and productive inputs, access working capital, and tap into new markets.”), <https://openknowledge.fao.org/server/api/core/bitstreams/03368b5c-a8a5-469a-86da-aaed836565d0/content>.

<sup>16</sup> *Id.*

inadequate support structures, which in turn reduce the risks and costs associated with lending to the agricultural sector. For example, the Papua New Guinea representative commented about their economy plan as follows at the APEC EC October 2024 Workshop:

The PNG National Agriculture Sector Plan 2024-2033 (NASP) aims to transform Papua New Guinea's agriculture from subsistence farming to a profitable commercial industry. The plan highlights reforms to foster private investment, land mobilization, and infrastructure growth. It promotes an environment conducive to financing, modernization of land registration, and climate-smart agriculture. The NASP aligns economy's efforts to boost productivity, enhance market competitiveness, and generate PGK30 billion by 2030. Launched in 2025, it seeks to empower one million farming families and increase domestic agricultural output. The plan provides long-term concessionary loans with repayment periods of 20 to 40 years, managed by banks and lenders. Its goals include reducing food imports, stimulating the rural economy, and encouraging structured farming practices. It targets dedicated farmers and cooperatives, urging accountability and resource efficiency.<sup>17</sup>

As noted by the World Bank Group, available support structures in most developing economies (including many APEC Member Economies) are insufficient to finance the shift to sustainable agriculture and agri-food industries.<sup>18</sup> Stakeholders agree that “[l]ack of sufficient legal and financial infrastructures in low-income economies is perhaps one of the biggest hindrances for SME agricultural financing.”<sup>19</sup> Important challenges for financial institutions, on the supply side, include: (i) managing the unique risks in agriculture such as severe weather conditions, (ii) high transaction costs in dealing with large number of small farmers, and MSMEs along agriculture value chains, (iii) lack of qualified borrowers, as well as (iv) lack of expertise of managers of agricultural loan portfolios.<sup>20</sup> Meanwhile, on the demand side, agribusinesses face challenges accessing credit due to: (i) inability to meet collateral requirements of financial institutions, (ii) lack of documentation, (iii) remoteness from bank branches, and (iv) inaccessibility of markets, among others.<sup>21</sup>

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<sup>17</sup> APEC Workshop on Secured Finance to Improve Food Security, *supra* note 9 at 17, Maranatha Letuan, Senior Legal Officer, Department of Justice & Attorney General -- Office of State Solicitor, Papua New Guinea. See also the Philippines, National Strategy for Financial Inclusion, 2022-2028, <https://www.bsp.gov.ph/Pages/InclusiveFinance/NSFI-2022-2028.pdf>. (“Challenges in financing agriculture workers and MSMEs are further exacerbated by inadequate support structures that could reduce the risks and costs of lending to these sectors. Such support structures would include, among others, a robust credit information system, a credible warehouse receipt system, credit and agriculture insurance, and guarantee programs.”).

<sup>18</sup> Agriculture Finance & Agriculture Insurance, note 10 *supra*.

<sup>19</sup> See Abbey Stemler and Anjanette H. Raymond, Promoting Investment in Agricultural Production: Increasing Legal Tools for Small To Medium Farmers (The Ohio State Entrepreneurial Business Law Journal, 2013) (“According to the law and finance theory developed by Professor Rafael La Porta, [economies’] financial systems will flourish if they have legal systems that enforce private property rights, support private contractual arrangements and protect the legal rights of investor.”), <https://kb.osu.edu/server/api/core/bitstreams/e02d6458-61ba-56bb-af64-5827749ec57e/content>.

<sup>20</sup> *Id.*

<sup>21</sup> See, e.g., Claudia Ruiz, How Can Finance Influence Productivity of Agricultural Firms? (World Bank Blog, 2014), <https://blogs.worldbank.org/en/allaboutfinance/how-can-finance-influence-productivity-agricultural-firms>.

To address these challenges, economies should establish appropriate support structures that align with international standards, including adopting modern laws on secured transactions, warehouse receipts, and leasing. Implementation of such standards enables the deployment of progressive credit products designed to lower the costs and risks of lending to participants of the agricultural sector, including the acquisition of modern equipment that can enhance productivity and allow commercial activities to be conducted sustainably. The APEC EC October 2025 Workshop emphasized that digitalization, smart agriculture, and precision farming require modern legal and regulatory frameworks to facilitate technology adoption in agriculture.<sup>22</sup> As the World Bank has observed, the use of digitalization, including through AI, can serve as the glue that will hold the ecosystem together, where farmers capture more value, lenders see predictable cash flows, and incomes rise.<sup>23</sup>

### **C. Typical pre- and post-harvest agricultural finance products**

Agricultural finance products may be categorized according to the stage of the production cycle. Pre-harvest agricultural finance products address the needs of agribusinesses at the beginning of the cycle when inputs, such as seeds, fertilizers, and pesticides used in the production of agricultural commodities, are needed. Pre-harvest agricultural finance may also encompass credit products designed to assist with the purchase of farming tools, equipment, machinery, and other technology used in the production process. International financial institutions have been less successful in promoting agricultural finance in economies (including APEC economies) at the early stages of “agrifood system development,” when pre-harvest finance is most needed.<sup>24</sup>

A secured agricultural production loan is a classic example of a pre-harvest agricultural finance product. Such loans finance the production of a particular commodity. They are usually ‘self-liquidating,’ which means they are repaid from the proceeds of the sale of the harvest. For this reason, they are extended on a short-term basis, usually lasting a single production cycle. The maturity date is set to coincide with the date that the commodity is expected to be sold. Because these loans are repaid from the proceeds of the sale, a lender takes a security right in the (future) commodity and its proceeds, typically in the form of cash or a receivable.

Crop receipts financing is a type of pre-harvest secured agricultural production loan in which the lender’s security right over a future agricultural commodity is registered in a

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<sup>22</sup> See APEC Workshop on Secured Finance to Improve Food Security, *supra* note 9 at 25, Kip Eideberg, Association of Equipment Manufacturers (U.S.), highlighting the positive impact that precision agriculture technology on equipment has had on both farmers and the environment, ultimately boosting productivity by enabling the more efficient use of critical inputs such as land, water, fuel, fertilizer, and herbicides. He concluded that by increasing legal certainty and thereby reducing credit risk for financiers, the MAC Protocol is positioned to lower financing costs and expand access to cutting-edge, modern equipment.

<sup>23</sup> Ajay Banga, World Bank, note 11 *supra*.

<sup>24</sup> See *Toward Productive, Inclusive, and Sustainable Farms and Agribusiness Firms: An Evaluation of the World Bank Group’s Support for the Development of Agrifood Economies (2010–20)* (World Bank, 2022),

[https://openknowledge.worldbank.org/handle/10986/37931?cid=ECR\\_E\\_NewsletterWeekly\\_EN\\_EXT&deliveryName=DM153165](https://openknowledge.worldbank.org/handle/10986/37931?cid=ECR_E_NewsletterWeekly_EN_EXT&deliveryName=DM153165).

collateral registry, and the borrower issues a negotiable instrument to the lender, thereby reducing the risk of default. This arrangement allows the lender to trade the instrument in the secondary market, similarly to a security, such as a bond.

Another example of a pre-harvest credit product is a lease of equipment, machinery, and other technology used in the production of agricultural commodities. According to the International Financial Corporation (IFC), “new developments [...] in agriculture finance call for a still increased role for lease financing.”<sup>25</sup> Leasing has become a popular means of acquiring such assets.<sup>26</sup> While equipment can be obtained through a loan, leases often offer more affordable and flexible payment structures.<sup>27</sup> In leasing, the provider (lessor) owns the equipment and permits the client (lessee) to use the equipment in exchange for periodic payments (lease payments), also referred to as an ‘operating lease.’<sup>28</sup> Leases are also a means of acquiring equipment (and not just its use), and ownership may be transferred to the lessee at the end of the lease period, also referred to as a ‘financial lease.’<sup>29</sup>

The purpose of post-harvest finance differs from pre-harvest finance. Rather than facilitating the production of a crop, post-harvest finance enables its delivery, storage, and marketing. Post-harvest finance is more accessible to farmers compared to pre-harvest finance because

it concerns loans secured by existing commodities (typically stored in a third-party warehouse)

that may be easily disposed of in case of default. The most common form of post-harvest finance is warehouse receipts finance. In warehouse receipts finance, the provider (lender) extends a loan to an agribusiness secured by a negotiable warehouse receipt covering agricultural commodities stored in a third-party storage facility. Warehouse receipts finance is often deployed within a regulated system with multiple participants, including farmers, lenders, warehouse operators, and traders.

### **III. Key International Standards and Guidance Relevant to Agricultural Finance**

Pre- and post-harvest finance products are governed by a variety of international standards, providing a modern framework that includes model laws and international treaties. This section provides an overview of the critical features of those standards, dividing them into general and asset-specific, reflecting the differences in their scope.

#### **A. General secured transactions standards**

A modern framework for the creation, third-party effectiveness (perfection), priority, and enforcement of security rights in all types of movable assets, including agricultural

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<sup>25</sup> See *Leasing in Development: Guidelines for Emerging Economies*, Second Edition (IFC, 2009), <https://documents1.worldbank.org/curated/en/998901468326962267/pdf/516730WP0Box341inDevelopment1Manual.pdf>.

<sup>26</sup> See *Focused Leasing Toolkit: Agricultural Leasing, Sustainable Energy Equipment Leasing, Regulatory & Supervisory Matters Relating to Leasing, Islamic Leasing (Ijarah)* (IFC, 2011), <https://documents1.worldbank.org/curated/en/099611205212431832/pdf/IDU18a7a540a1d22414650193f7187fac644becd.pdf>.

<sup>27</sup> *Id.*

<sup>28</sup> See *Leasing: An Underutilized Tool in Rural Finance* (World Bank Group, 2003), <https://documents1.worldbank.org/curated/en/600191468175127715/pdf/313710ARD1701public1.pdf>.

<sup>29</sup> *Id.*

commodities, is necessary to enable the deployment of pre- and post-harvest agricultural finance products, including secured agricultural production loans, crop receipts finance, agricultural leasing, and warehouse receipts finance.<sup>30</sup> UNCITRAL has issued various standards providing for such a framework, including the Legislative Guide on Secured Transactions (2011), the Model Law on Secured Transactions (2016), and the Guide to Enactment of the Model Law on Secured Transactions (2017).<sup>31</sup> Although none of these standards contain specific rules applicable to security rights in agricultural commodities, general provisions on movable assets, including tangible assets such as equipment, as well as negotiable documents, support various agricultural finance products.

The UNCITRAL Model Law includes Model Registry Provisions in Chapter IV, which provide for an online, notice-based collateral registry critical for the deployment of pre-harvest finance products, such as secured agricultural production loans and leases of farming equipment. A collateral registry enables the perfection of security rights in various types of assets that remain in the possession of the borrower, including crops and agricultural equipment, as well as any receivables and/or proceeds generated from their disposition. In a secured agricultural production loan, for example, the lender would be granted a security right in the growing and harvested crop of the borrower. Similarly, in a financial lease (the UNCITRAL Model Law does not apply to operating/true leases), the lessor would take a security right in the agricultural equipment used by the borrower (lessee).<sup>32</sup> The UNCITRAL Model Law enables the perfection of security rights in warehouse receipts by possession (or control).<sup>33</sup>

While the UNCITRAL Model Law provides a general framework for security rights in agricultural commodities (including equipment), some important aspects of the transactions underlying these products are not covered. For example, the UNCITRAL Model Law does not contain rules outlining the requirements that need to be fulfilled to issue a valid warehouse receipt that may be transferred to a third party by delivery and/or endorsement, which is not a gap but a natural limitation of the scope of a secured transactions law.

An additional issue relating to the use of crops for pre-harvest finance is that the UNCITRAL Model Law applies to movable assets, which are defined as assets that are not “immovable property.” The Model Law doesn’t define the term immovable property, which is left to the law of the enacting jurisdiction. The challenge in many jurisdictions is that property law defines immovable property as including anything associated with it, which would capture growing crops. An earlier study conducted by

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<sup>30</sup> APEC has recently released guidance on implementation of modern secured transactions frameworks. See Study on Techniques to Implement International Secured Transactions Standards in Civil and Common Law Jurisdictions (APEC, 2023), [https://www.apec.org/docs/default-source/publications/2023/12/223\\_ec\\_study-on-techniques-to-implement-international-secured-transactions-standards-in-civil-and-common-law-jurisdictions.pdf?sfvrsn=46491591\\_2](https://www.apec.org/docs/default-source/publications/2023/12/223_ec_study-on-techniques-to-implement-international-secured-transactions-standards-in-civil-and-common-law-jurisdictions.pdf?sfvrsn=46491591_2).

<sup>31</sup> The instruments are available at <https://uncitral.un.org/en/texts/securityinterests>. See also APEC Workshop on Secured Finance to Improve Food Security, *supra* note 9 at 21, Jae Sung Lee, UNCITRAL (providing an overview of the instruments).

<sup>32</sup> Some APEC economies’ secured transactions laws apply to financial and (long-term) operating leases, including Australia; Brunei Darussalam; Canada (provinces); Papua New Guinea; and New Zealand.

<sup>33</sup> Article 26 of the UNCITRAL Model Law states that a “security right in [a negotiable document] may [...] be made effective against third parties by the secured creditor’s possession of the document.”

the APEC EC found that 17 out of 21 APEC economies permit the use of crops for pre-harvest finance.<sup>34</sup>

## **B. Product/asset-specific standards**

UNIDROIT and UNCITRAL have also issued standards that address specific aspects relevant to the pre- and post-harvest finance products not covered by the UNCITRAL Model Law, particularly the leasing of agricultural equipment and warehouse receipts finance. Such standards include the (i) UNIDROIT Model Law on Leasing, (ii) the UNIDROIT Cape Town Convention and MAC Protocol, and (iii) UNCITRAL-UNIDROIT Model Law on Warehouse Receipts. The following paragraphs examine the critical aspects of these standards in the chronological order of their adoption.

The UNIDROIT Model Law on Leasing, adopted in 2008, provides modern legal rules for leasing agricultural equipment under both operating and financial leases.<sup>35</sup> The key feature of a financial lease is a three-party transaction involving the supplier, the lessor, and the lessee, with the lessee selecting the supplier.<sup>36</sup> The Model Law incorporates best practices and combines leading trends from both common law and civil law systems. Assets that can be leased include all property used in the lessee's business, such as equipment, machinery, living animals, future assets, and software related to machinery or equipment.<sup>37</sup> An important aspect of financial leases is the unconditionality principle, often called the "hell or high-water clause." Once the leased asset has been delivered and accepted, the lessee's obligations become irrevocable and are not subject to any conditions of use or performance.<sup>38</sup> The lessor mainly acts as a conduit between the supplier and the lessee and should be protected because of its limited role in financing the transaction. The lessor's rights, such as to rental payments, can be assigned without needing the lessee's consent, enabling securitization and secondary market transactions.<sup>39</sup> The Model Law is particularly important for the agricultural sector, where access to modern equipment can be a major obstacle for farmers, especially in developing economies. Leasing offers a practical alternative to outright purchasing, allowing farmers to use up-to-date machinery without large initial investments.<sup>40</sup>

The UNIDROIT Cape Town Convention, adopted in 2001, provides for the constitution and effects of international interests in different categories of mobile equipment.<sup>41</sup> The Convention establishes a single global registration system for perfecting international

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<sup>34</sup> Assessing APEC Getting Credit Frameworks According to International Best Practices (EC05 2017A) at 16-17.

<sup>35</sup> See Model Law on Leasing – Overview (UNIDROIT), Background to the Preparation of the Model Law on Leasing, <https://www.unidroit.org/instruments/leasing/model-law/overview/>; Model Law on Leasing, Official Commentary, [https://www.unidroit.org/wp-content/uploads/2021/07/Leasing-Model\\_Law-EXP\\_REP-English.pdf](https://www.unidroit.org/wp-content/uploads/2021/07/Leasing-Model_Law-EXP_REP-English.pdf).

<sup>36</sup> Model Law on Leasing, Art. 2 Financial Lease. The definition of a financial lease in the Model Law follows the definition of a financial lease in the UNIDROIT Convention on International Financial Leasing (1988).

<sup>37</sup> *Id.* Art. 2, Asset.

<sup>38</sup> *Id.*, Art. 10(1).

<sup>39</sup> *Id.*, Art. 15(1)(a).

<sup>40</sup> See APEC Workshop on Secured Finance to Improve Food Security, *supra* note 9 at 26-27, Rafael Castillo-Triana, ALTA Group (U.S.); *Id.* at 27-28, Keith Rodwell (Alta APAC).

<sup>41</sup> See CapeTown Convention - Overview (UNIDROIT), <https://www.unidroit.org/instruments/security-interests/cape-town-convention/overview/>.

interests. An international interest created under the Convention extends not only to classic security rights but also to conditional sales under a title reservation agreement and to leases under leasing agreements.<sup>42</sup> The MAC Protocol to the Convention was adopted in 2019 and establishes an international legal framework for the financing of mining, agriculture, and construction equipment.<sup>43</sup> The MAC Protocol may present new opportunities for APEC economies to address global concerns, including ensuring food security, as well as concerns specific to the financing and leasing of such equipment. It is designed to reduce the cost of financing and leasing transactions by imposing minimal requirements for creating international interests and providing a set of effective remedies, both within and outside of insolvency proceedings.<sup>44</sup>

Finally, the UNCITRAL-UNIDROIT Model Law on Warehouse Receipts, adopted in 2024, provides a legal framework for the private law aspects of a warehouse receipt system, including the issuance and transfer of warehouse receipts.<sup>45</sup> Notably, the Model Law contemplates the issuance and transfer of both paper-based and electronic warehouse receipts.<sup>46</sup> This enables the use of central registries, distributed ledgers, platforms, and other technologies to manage electronic warehouse receipts.<sup>47</sup> A significant majority of storage transactions that result in the issuance of warehouse receipts involve agricultural commodities, such as coffee and grains.<sup>48</sup>

#### **D. Status of implementation in APEC**

The following table (Table 1) measures the status of implementation of international standards among APEC economies, namely, the UNCITRAL Model Law on Secured Transactions (“MLST”), the UNCITRAL-UNIDROIT Model Law on Warehouse Receipts (“MLWR”), the UNIDROIT Model Law on Leasing (“MLL”), and the UNIDROIT Convention on International Interests in Mobile Equipment (“CTC”). Except for the CTC, the status of implementation for each standard is measured as “Yes,” “Partial,” or “No.” A “Yes” indicates that the domestic law is in substantial compliance with the relevant standard, a “Partial” indicates that the domestic law partially reflects the standard, and a “No” indicates that the domestic law is not in compliance with the standard. For CTC, the status of implementation is measured according to “Since \_\_\_\_\_” and “No.” “Since \_\_\_\_\_” indicates the date that the APEC economy became a Contracting Party to the Convention.

The MLST measurements include two sets of numeric ratings from the relevant indices of the World Bank’s latest Doing Business Report (discontinued in 2020) and the World Bank’s new B-Ready Report (most recently published in December, 2025) covering

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<sup>42</sup> Cape Town Convention, Art. 2.

<sup>43</sup> See MAC Protocol – Overview (UNIDROIT), <https://www.unidroit.org/instruments/security-interests/mac-protocol/overview/>.

<sup>44</sup> See APEC Workshop on Secured Finance to Improve Food Security, *supra* note 9 at 22-26 for a more complete discussion of the Cape Town Convention and the MAC Protocol.

<sup>45</sup> See UNCITRAL/UNIDROIT Model Law on Warehouse Receipts, note 5 *supra*.

<sup>46</sup> *Id.* Art. 1(2).

<sup>47</sup> *Id.* Art. 6.

<sup>48</sup> See APEC Workshop on Secured Finance to Improve Food Security, *supra* note 9, at 28-29, Teresa Rodriguez De Las Heras, University of Madrid (Spain), for a more complete discussion of the Model Law.

14 APEC economies.<sup>49</sup> The Strength of Legal Rights Index in the Doing Business Report ranks jurisdictions' secured transactions frameworks on a 0–12 scale, whereas the B-Ready Report uses a 0–40 scale to measure the quality of legislation governing secured transactions. A higher score indicates a closer alignment with the MLST. Table 1 refers to the B-Ready Index, for 14 APEC economies, because it is more recent; it relies on the Doing Business Index for 7 economies because those economies have not yet been covered by the B-Ready Index. Additional research was conducted to determine whether a reform (bringing the domestic framework into closer alignment with the MLST) was implemented after the publication of the Doing Business assessments (e.g., China, which recently adopted the Civil Code, effectively reforming its secured transactions framework).<sup>50</sup> According to these indices and the additional research outlined above, it can be concluded that nine economies have a secured transactions law that aligns with the MLST, five have a law that partially aligns with the MLST, and seven have a law that does not align with the MLST. The results are consistent with an earlier comprehensive study on Assessing APEC Getting Credit Frameworks According to International Best Practices (EC05 2017A). That Study (as updated) concluded that no reform was needed in eight APEC economies, partial reforms were needed in eight APEC economies, and comprehensive reforms were needed in five APEC economies.<sup>51</sup>

The measurements for the MLWR include one set of numeric ratings from the relevant indices of the World Bank's 2019 Enabling the Business of Agriculture Report, namely the Warehouse Receipts Index, which uses a 0–5 scale.<sup>52</sup> The Warehouse Receipts Index assesses whether the jurisdiction's framework provides for a licensing and supervisory regime applicable to warehouse operators (see also Section E that discusses regulatory aspects) and whether it recognizes receipts in negotiable and electronic form (in line with the MLWR). Additional research was carried out to assess the domestic frameworks of jurisdictions not covered by the Warehouse Receipts Index (e.g., Brunei Darussalam). For those jurisdictions that are covered, additional research was also carried out to determine whether a reform (bringing the domestic framework into closer alignment with the MLWR) was implemented after publication of the Enabling the Business of Agriculture Report in 2019. The analysis also takes into account presentations by economies at the APEC EC October 2025 Workshop on their laws on warehouse receipts. Based on the Warehouse Receipts Index and the additional research, six economies have a warehouse receipts law that aligns with the MLWR, eight have a warehouse receipts law that partially aligns with the MLWR, and seven have a warehouse receipts law that does not align with the MLWR.

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<sup>49</sup> Business Ready (B-Ready) 2025, <https://www.worldbank.org/en/businessready>. The World Bank is rolling out its new B-Ready Indicators to cover about 180 economies in four tranches over four years. The 2024 B-Ready Report covered the following APEC economies: Hong Kong, China; Indonesia; Mexico; New Zealand; Peru; the Philippines; Singapore; and Viet Nam. The 2025 B-Ready Report released on December 16, 2025 added: Canada; Republic of Korea; Malaysia; Papua New Guinea; Chinese Taipei; and the United States. The 2026 B-Ready Report will add: Australia; Brunei Darussalam; Chile; China; Japan; and Thailand. The 2027 B-Ready Report will add Russia. Economies Covered by B-Ready, <https://www.worldbank.org/en/businessready/about-us/covered-economies>.

<sup>50</sup> China will be covered by the 2026 B-Ready Report. Id. Additionally, UNCITRAL lists Australia; Papua New Guinea; the Philippines; and New Zealand as having implemented the Model Law on Secured Transactions, [https://uncitral.un.org/en/texts/securityinterests/modellaw/secured\\_transactions/status](https://uncitral.un.org/en/texts/securityinterests/modellaw/secured_transactions/status).

<sup>51</sup> Assessing APEC Getting Credit Frameworks According to International Best Practices, note 34 supra, at 16-17.

<sup>52</sup> Enabling the Business of Agricultural Report (World Bank, 2019), <https://eba.worldbank.org/en/eba>.

Unlike the MLST and MLWR, there is no comparable international benchmark that measures the alignment of domestic leasing frameworks with the MLL. Research was carried out to assess the degree of alignment of the APEC economies' legal frameworks with the MLL. The analysis also takes into account an expert assessment of economy leasing laws at the APEC EC 2025 Workshop, along with individual economy self-assessments.<sup>53</sup> No APEC economy has adopted the Model Law in its entirety. However, the principles of the Model Law have been adopted by several APEC economies.<sup>54</sup> While Article 2A of the Uniform Commercial Code in the United States predates the publication of the MLL, it closely aligns with the MLL. The measurements for this standard include identifying the applicable law, which, in many jurisdictions, comprises laws on financial leases, either as standalone statutes or as part of more general legislation. For those jurisdictions that have not adopted the MLL, outdated hire-purchase acts and civil code provisions often govern lease agreements.

This Report measures ratifications of the CTC, a precondition for joining the MAC Protocol, which has not yet entered into force. Of the 20 eligible APEC member economies, 11 have joined the CTC, underscoring the treaty's value in facilitating cross-border commerce. The CTC's framework allows for declarations that can customize its application to reflect domestic policies. China, for instance, has utilized these declarations to exclude "internal transactions" from the Convention's scope.<sup>55</sup> Other Contracting Parties, such as Indonesia, have faced significant challenges in aligning domestic administrative practices with treaty obligations, highlighting the divide between de jure ratification and de facto implementation.<sup>56</sup> But, Indonesia, like many other APEC member economies (e.g., Malaysia), declared that the remedies set out in the CTC may be enforced extrajudicially.

**Table 1: Status of Implementation of key international standards in APEC economies**

	MLST	MLWR	MLL	CTC
Australia	Yes (11/12)	Yes (4/5) But see APEC Workshop on Secured Finance to Improve Food	Partial  Legal framework is influenced by the common law, rather than a single, unified law	Since 2015

<sup>53</sup> APEC Workshop on Secured Finance to Improve Food Security, supra note 9 at 27, Rafael Castillo-Triana, ALTA Group (U.S.). He observed: "No APEC economy has adopted the Model Law outright. However, the principles of the Model Law have been adopted by several APEC economies, including Australia; Canada; China; Indonesia; Japan; Korea; Mexico; Chinese Taipei; the United States; and Viet Nam."

<sup>54</sup> Id.

<sup>55</sup> See Aircraft financing in China: are cape town protections available for PRC internal transactions? (King & Wood Mallesos, Lexology, 2015), [https://www.lexology.com/library/detail.aspx?g=6730b48e-597f-43ba-aed6-a738775fd38e#:~:text=Under%20Article%2050\(1\)%20of,then%20leased%20to%20PRC%20airlines.](https://www.lexology.com/library/detail.aspx?g=6730b48e-597f-43ba-aed6-a738775fd38e#:~:text=Under%20Article%2050(1)%20of,then%20leased%20to%20PRC%20airlines.)

<sup>56</sup> See Prita Amalia Faiz, Indonesia's Implementation of Cape Town Convention 2001 (International Institute of Social and Economic Sciences, 2015), <https://ideas.repec.org/p/sek/iacpro/2705061.html#:~:text=Four%20essential%20matters%20which%20should,on%20Cape%20Town%20Convention%202001.>

		Security, supra note 9 at 15 where it was pointed out the Australian PPSA allows for security interests documents of title (warehouse receipts), but that it currently does not have a warehouse receipts law that would enable this to apply.	on leasing; leasing contracts have historically been treated as forms of hire purchase, bailment	
Brunei Darussalam	Yes (12/12)	No	No	No
Canada	Yes (33/40)	Yes (5/5)	Partial Canada's legal framework for leasing is influenced by the common law and no codified act in the manner of the Uniform Commercial Code in the United States has been enacted; Canadian courts have referred to the Uniform Commercial Code as persuasive authority in court decisions concerning leases	Since 2012
Chile	No (4/12)	Partial (4/5) No legal recognition of electronic warehouse receipts	No Civil Code and Contract Law  Courts follow MLL See notes 76-78 infra and accompanying text.	No
China	Partial (4/12) China reformed its secured transactions framework through adoption of a Civil Code	Partial (3/5) But see note 63 infra and accompanying text re: need to reform law based on MLWR.	Yes Civil Code contains provisions dedicated to lease agreements and financial lease that	Since 2009

	after the last Doing Business Report was issued in 2020.		were inspired by the MLL	
Hong Kong, China	Partial (27/40)	No	No Hire Purchase Act of 1964	No
Indonesia	No (23.83/40)	Partial See notes 65-70 and accompanying text pointing out that while the Law on Warehouse Receipts provides for a robust framework, deficiencies in the secured transactions framework create issues for using warehouse receipts as collateral.	Partial Civil Code and regulations	Since 2007
Japan	No (5/12)	Partial (4/5) No legal recognition of electronic warehouse receipts	Partial Civil Code	No
Korea	No (16.92/40)	No (2/5)	Yes Civil Code and Commercial Act that contains private law rules in Chapter VII on Financial Lease Business based on the MLL	No
Malaysia	Partial (20.33/40)	No (0/5)	No Hire Purchase Act of 1967 and Financial Services Act of 2013	Since 2014

Mexico	Yes (35/40)	Yes (4/5)  See discussion infra note 72 and accompanying text re: the new Mexican electronic warehouse receipts law	Yes  The Mexican Credit Instruments and Operations General Law has several provisions concerning financial leases that are consistent with the UNIDROIT MLL	Since 2007
New Zealand	Yes (38/40)	Yes (4/5)	Partial Contract and Commercial Law Act of 2017	Since 2010
Papua New Guinea	Yes (33/40)	No	No Hire Purchase Act of 1966	No
Peru	Partial (30/40)	Yes (5/5)  But see infra note 62 and accompanying text re: the Peruvian ongoing effort to develop a modern electronic warehouse receipts law following the MLWR	Yes Civil Code contains rules on operational leasing and Legislative Decree No. 299 contains private law rules on financial lease following MLL. See note 80 infra and accompanying text.	No
The Philippines	Yes (32/40)	Partial (4/5) But see infra at pg. 21-22 noting that the Philippines still relies on the outdated Warehouse Receipts Law of 1912.	No The Civil Code provides general rules governing installment sales agreements of personal property and the lease of things but there are no special substantive rules governing the rights and obligations of the parties to a	No

			financial lease agreement. See notes 74-75 infra and accompanying text.	
Russian Federation	Yes (9/12)	Partial (3/5)	Yes Civil Code and Law on Financial Lease are consistent on the UNIDROIT Convention on International Financial Leasing.	Since 2011
Singapore	No (22/40)	No	No Hire Purchase Act of 1969, amended to conform with consumer protection legislation in 2004.	Since 2009
Chinese Taipei	No (8.67/40)	Partial Civil Code	Partial Civil Code, Secs. 421-463	Not eligible to join
Thailand	Partial (7/12)	Partial (3/5)	Partial Notification of the Bank of Thailand, Notice FPG. 1/255 (Aug 2003) (Sec. 5.1) provides permission for commercial banks to conduct financial leasing businesses where the lessee is obligated to maintain and repair the leased asset and the lessee cannot terminate the contract unilaterally before maturity.	No
United States	Yes (23/40)	Yes (5/5)	Yes	Since 2004

	<p>The U.S. scored 0 out of 10 on one of the components -- having an Integrated legal framework -- apparently because each U.S. state has its own secured transaction law. However, each state follows Uniform Commercial Code (UCC) Article 9. Canada, on the other hand, scored 10 out of 10 for having an integrated legal framework, even though they also lack a federally unified law, which calls into question the reliability of the new index for secured transactions reform. Earlier the U.S. received a score of 11/12 for secured transaction reform under the 2020 EoDB index.</p>		<p>Uniform Commercial Code, Art. 2A</p>	
Viet Nam	<p>No (24.08/40)</p>	<p>No (0/5)</p>	<p>Yes Civil Code and Decree on Financial Leasing contains private law rules based on the UNIDROIT MLL, See note 81 infra and accompanying text.</p>	<p>Since 2014</p>

## IV. Issues in the APEC Region

This Section of the Study illustrates the issues with implementing the relevant international standards in selected APEC member economies.

### A. UNCITRAL Model Law on Secured Transactions

Japan exemplifies a recent reform approach that significantly departs from the MLST. In June 2024, its Diet passed The Act on the Promotion of Cash Flow-Based Lending (Act No. 52 of 2024). The Act provides for an “enterprise charge” that allows security to be granted over the entire business, including immovable property. This charge must be registered in the company’s registry. Only specifically licensed trust companies can act as secured creditors and benefit from the enterprise charge. It is a new type of security device without a counterpart in the MLST. Previously, granting security over the enterprise required multiple security rights encumbering different asset types, a process that the reform simplifies. Its implementation has been postponed until December 2026. Additionally, in March 2025, the government drafted a bill concerning retention of title agreements and security assignments. The MLST recharacterizes retentions of title and security assignments as security rights.

Issues also concern the implementation of adopted laws, as shown by the Philippines. Republic Act No. 11057 (Personal Property Security Act, PPSA), issued in August 2018, required the creation of a collateral registry. However, it took the government seven years to get the registry operational, which was only launched in January 2025.<sup>57</sup> Until then, the outdated and now-repealed Chattel Mortgage Act continued to govern the creation and perfection of security rights in the Philippines.<sup>58</sup> The Philippines’ experience highlights that, even when an economy enacts legislation that aligns with international standards (e.g., the MLST), delays in implementing important elements (e.g., the collateral registry) can prevent the full benefits of law reform from being realized.

As discussed by the Malaysian representative at the APEC October 2025 Workshop, Malaysia’s low scores on the World Bank Doing Business Index prompted the economy to initiate secured transactions reform following the MLST. Currently, there is no unified framework for secured transactions. Instead, sections 352-364 of the Companies Act 2016 regulate the registration of charges on both immovable and movable property created by incorporated entities. For unincorporated entities such as sole proprietors and partnerships, there is no legal framework governing the creation and enforcement of security rights. The Malaysian Movable Property Security Interest (MPSI) Bill aims to establish a comprehensive legal framework for creating, registering, and enforcing security interests in movable property used as collateral for financing or loans, including tangible and intangible assets. It would apply to all security interests created by both incorporated and unincorporated entities, as well as individuals. The MPSI Bill’s registration system would be fully electronic, featuring notice filing and advance registration. By increasing transparency and certainty, the

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<sup>57</sup> See news release from the collateral registry website dated February 2, 2025, <https://ppsr.lra.gov.ph/2025/02/02/introducing-the-personal-property-security-registry-ppsr-a-fresh-chapter-for-property-security-and-transparency/>.

<sup>58</sup> The Chattel Mortgage Act was enacted in 1906, [https://lawphil.net/statutes/acts/act1906/act\\_1508\\_1906.html](https://lawphil.net/statutes/acts/act1906/act_1508_1906.html).

bill aims to give businesses better access to credit at lower costs, including for agricultural assets such as crops.<sup>59</sup>

## **B. UNCITRAL-UNIDROIT Model Law on Warehouse Receipts**

Many APEC member economies lack an adequate framework for warehouse receipts. Their laws are often outdated or too rudimentary to support the scaling of storage, distribution, and financing transactions.

At the APEC October 2025 Workshop, the representative from Viet Nam commented:

“There is also a near-total absence of a legal framework for negotiable warehouse receipts in Viet Nam. The governing framework is provided in the Civil Code, Circular 200/214/TT-BTC, which sets out the standardized format for a warehouse receipt, and customs legislation. The paradox in Viet Nam is that farmers own billions in productive assets (crops, livestock, machinery), but in practice, banks almost exclusively accept one type of collateral: land-use rights. The lack of a legal framework for warehouse receipts means that farmers cannot use their stored commodities to secure loans. The legal vacuum fuels the chronic “good harvest, low price” problem, in which farmers need immediate cash to pay debts, but millions are forced to sell at once, leading to price collapses. The over-reliance on real estate collateral excludes most farmers and perpetuates small-scale production by making value chain financing difficult.<sup>60</sup>

Similarly, the representative from Papua New Guinea commented:

Papua New Guinea lacks formal legal recognition for warehouse receipts, which limits their use as loan collateral. Agribusinesses and cooperatives issue informal receipts, but these lack standardization and legal backing. The absence of an economy-wide system makes it difficult for financial institutions to assess the value and ownership of stored commodities. A legal framework with regulatory oversight and standardized documentation would improve access to financing for smallholder farmers.<sup>61</sup>

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<sup>59</sup> APEC Workshop on Secured Finance to Improve Food Security, *supra* note 9 at 14-15, Khairon Niza Md Akhir, Regulatory Development & Services Division Companies Commission of Malaysia.

<sup>60</sup> APEC Workshop on Secured Finance to Improve Food Security, *supra* note 9 at 13-14, Nguyen Doan Trang, National Institute for Economics and Finance (Viet Nam). See also Vietnam Agriculture Finance Diagnostic Report Financial Inclusion Support Framework: Vietnam Country Support Program (IFC, 2019), <https://documents1.worldbank.org/curated/en/884321587357455934/pdf/Vietnam-Agriculture-Finance-Diagnostic-Report-Financial-Inclusion-Support-Framework-Country-Support-Program.pdf>. The report states that “In particular, there is a lack of regulatory framework specific to commodity collateralized lending such as warehouse receipt financing.”

<sup>61</sup> APEC Workshop on Secured Finance to Improve Food Security, *supra* note 9 at 16-17 (Maranatha Letuan, Senior Legal Officer, Department of Justice & Attorney General -- Office of State Solicitor, Papua New Guinea),

In Peru, warehouse receipts are regulated by Law No. 27287, which grants credits backed by the goods received in storage. At the APEC EC 2025 Workshop, the Peruvian representative mentioned that the IFC is providing technical assistance to develop a digital CR/WR. The aim is to establish a modern legal framework that aligns with international standards, following the MLWR for digitalization, issuance, transfer, the warehouse operator's obligations, and the delivery of goods.<sup>62</sup>

China lacks specific legislation on warehouse receipts, relying solely on scattered rules within the Civil Code. The rules do not distinguish between negotiable and non-negotiable warehouse receipts—treating all as negotiable. Furthermore, its general framework differs in many aspects from the MLWR. At the APEC EC October 2025 Workshop, an expert commented that China could benefit from enacting legislation based on the MLWR.<sup>63</sup>

The Philippines still relies on the Warehouse Receipts Law of 1912 (Act No. 2137) and the Sugar Regulatory Administration regulations for warehouse receipts covering sugar. Its archaic provisions hinder the deployment of modern technologies and the formation of secondary markets, including for commodity futures contracts. For instance, the Act does not provide for electronic receipts but does include provisions for dealing with duplicate paper receipts. Not only would the private law framework benefit from modernization, but the regulatory framework is shrouded in uncertainty. The trust in the warehouse receipts system is further undermined by the lack of enforcement of standards governing grades and quality of deposited goods.<sup>64</sup> The Personal Property Security Act of 2017 includes rules on negotiable documents of title, but neither the Act nor the implementing regulations define this asset class or clarify whether it covers warehouse receipts, exacerbating uncertainty. All of these challenges severely limit farmers' access to credit, and even the Central Bank called for amendments to the 1912 Act.

Indonesia has established a comprehensive legal framework for its warehouse receipts system [*sistem resi gudang*], primarily through Law No. 9 of 2006 and its amendment Law No. 9 of 2011.<sup>65</sup> A key feature of the Indonesian warehouse receipts system is its supportive ecosystem, which includes a dedicated warehouse receipts registry and a guarantee fund that protects holders against the risk of default by the warehouse operator. Both the registry and the fund are managed by the same government-run entity, PT Kliring Berjangka (KBI).<sup>66</sup> Indonesia's warehouse receipts system is overseen by the Commodity Futures Trading Regulatory Agency [*Badan Pengawas Perdagangan Berjangka Komoditi*], a government entity operating under the authority of the Ministry of Trade. The Agency is also charged with licensing and supervising warehouse operators and commodity exchanges that deal in warehouse receipts. The framework explicitly provides for the issuance and transfer of both paper

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<sup>62</sup> Id. at 11 (Lourdes Chero PACHECO, Advisor at the Ministry of Economy and Finance).

<sup>63</sup> Id. at 29 (Lyu Qui, Beijing Fnlegor Law Firm (China)).

<sup>64</sup> See Roehlano Briones et al, Warehouse Receipts as a System for Improving the Efficiency of Rice and Corn Marketing in the Philippines. <https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidsdps1645.pdf>.

<sup>65</sup> See policy document published by the Food and Fertilizer Technology Center for the Asia Pacific Region, <https://ap.ffc.org.tw/article/822>. For links to Law No. 6 of 2006 law, see [https://www.ptkbi.com/cfind/source/files/uu\\_no\\_9\\_2006.pdf](https://www.ptkbi.com/cfind/source/files/uu_no_9_2006.pdf); and for the 2011 amendment, see [https://www.ptkbi.com/cfind/source/files/uu\\_no\\_9\\_2011.pdf](https://www.ptkbi.com/cfind/source/files/uu_no_9_2011.pdf).

<sup>66</sup> Id.

and electronic warehouse receipts,<sup>67</sup> which are actively traded on Indonesia's commodity exchanges, chiefly the Indonesia Commodity and Derivatives Exchange (ICDX) but also the Jakarta Futures Exchange (JFX).

Despite what appears to be a fully operationalized warehouse receipts system that closely aligns with international standards such as the MLWR, its use, particularly among smallholder farmers in Indonesia, has been limited.<sup>68</sup> Reports suggest that the reasons for the slow uptake are practical rather than legal.<sup>69</sup> However, a functional warehouse receipts system depends on a robust secured transactions law that provides sufficient protection to creditors in possession or control of negotiable documents, which does not appear to be the case in Indonesia, as shown by Table I above.<sup>70</sup>

Mexico has been a leader in developing international standards for warehouse receipts. Along with the United States, it proposed the development of a Model Law on Warehouse Receipts.<sup>71</sup> Recently, Mexico enacted a warehouse receipts reform that mandates exclusive use of electronic receipts, improving traceability and legal security, and ensuring publicity and priority of transfers and security rights by registration in the collateral registry. The reform enabled extrajudicial enforcement through automated public auctions. Mandatory digitization and cryptographic security in warehouse receipts reflect a forward-looking approach that modernizes traditional instruments with cutting-edge technology.<sup>72</sup>

### C. UNIDROIT Model Law on Leasing

Several APEC member economies have enacted leasing laws that follow the MLL, facilitating the development of an agricultural equipment leasing sector. In contrast, others rely on general commercial leasing or contract law, which may not address the

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<sup>67</sup> Government Regulation No. 36 of 2007 (PP 36/2007) explicitly provides for electronic (scripless) receipts. Article 1(3) of PP 36/2007 defines an electronic/scripless warehouse receipt [*Resi Gudang Dalam Bentuk Tanpa Warkaf*] as “a security whose ownership is recorded electronically.” The Information System Warehouse Receipt (ISWARE) is a proprietary platform developed and managed by the central registrar, PT KBI, to record issuances and transfers of electronic warehouse receipts.

<sup>68</sup> See Endro Gunawan et al, Farmers' Perceptions of the Warehouse Receipt System in Indonesia (Institute of Technology, Klong Luang, 2019), <https://www.mdpi.com/2071-1050/11/6/1690#:~:text=Implementation%20of%20the%20WRS%20in%20Indonesia%20has%20been%20slow%20since,due%20to%20competition%20with%20middlemen>.

<sup>69</sup> See, e.g., Optimization of corn commodity Warehouse Receipt System (WRS) in South Sulawesi based on system dynamics (IOP Conference Series: Earth and Environmental Science, 2021), <https://iopscience.iop.org/article/10.1088/1755-1315/886/1/012108/pdf#:~:text=The%20implementation%20of%20WRS%20in%20Indonesia%20has%20been%20slow%20since,due%20to%20competition%20from%20middlemen>.

<sup>70</sup> See Table 1, Status of Implementation of key international standards in APEC economies, supra (Indonesia received a score of 23.83/40 for its level of secured transaction reform).

<sup>71</sup> See Report of Working Group VI (Security Interests) on the work of its thirty-third session (New York, 30 April–4 May 2018), paras. 92-93, <https://docs.un.org/en/A/CN.9/938> (working group approved recommendation by the United States and Mexico that “work should be undertaken to prepare a substantive text on warehouse receipts, which would provide a modern and predictable legal framework.”)

<sup>72</sup> APEC Workshop on Secured Finance to Improve Food Security, supra note 9 at 18, 29, (Elsa AYALA, IFC Consultant).

unique risks and needs of the agricultural sector.<sup>73</sup> The lack of harmonization with international standards (MLL), regulatory barriers, complex permit requirements, and restrictions on foreign entry impede the development of effective leasing markets. Other concerns, such as equipment maintenance and liability of lessors in a financial lease, reduce incentives for financial institutions to offer leasing products. Many farmers and SMEs are unaware of leasing as a viable financing option or lack the technical knowledge to engage in leasing transactions. In the Philippines, for example, its Civil Code provides general provisions on installment sales agreements that apply to equipment leases. While the Philippines has enacted special legislation governing financial leasing companies, that legislation does not provide specific private law rules governing the rights and obligations of the parties. This gap in the law has caused issues between the parties to a leasing agreement.<sup>74</sup> Additionally, the development of an effective leasing sector, including in the agricultural sector, has been hindered by other factors, such as a lack of awareness of leasing as a viable option.<sup>75</sup>

China's Civil Code, enacted in 2020, contains provisions regarding both operating and financial leases that are similar but not identical to the MLL.<sup>76</sup> Like the MLL, the Chinese Civil Code states that "A financial lease contract is a contract whereby the lessor purchases the lessee-selected leased property from a lessee-selected seller, provides the leased property to the lessee for its use, and the lessee pays the lease expense."<sup>77</sup> The Civil Code, like the MLL, recognizes that the lessor mainly acts as a conduit between the supplier and the lessee and should be protected because of its limited role in financing the transaction. The Civil Code specifies that for a financial lease:

- If the leased property does not comply with the contract or is not fit for the intended purpose, the lessor is not liable for it.
- The lessee's exercise of the right to claim against the seller shall not affect the performance of its obligation to pay lease expenses.
- The lessee shall perform the obligations of maintenance and repair of the leased property during the period when the lessee possesses the leased property.
- If the leased property causes personal injury or property damage to a third party while in the lessee's possession, the lessor shall not be liable.

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<sup>73</sup> See Abbey Stemler et al, Promoting Investment in Agriculture Production: Increasing Legal Tools for Small to Medium Farmers, <https://core.ac.uk/reader/159570100> .

<sup>74</sup> See Ralph Rosales, What exactly is a financial leasing? September 20, 2024, <https://accralaw.com/2024/09/20/what-exactly-is-financial-leasing-definition-issues-and-requisites/>, The Philippines Civil Code Arts. 1484-1485 and 1642-1645 provides provisions on leasing of equipment while the Philippines Republic Act No 8556 (Financing Company Act of 1998) provides rules for the regulation of financial leasing companies. The Financing Company Act (Sec. 12) does provide, like the MLL that financing companies shall not be liable for loss, damage or injury caused by the leased equipment to a third party.

<sup>75</sup> See Philippine Country Report to the Asian Financial Services Association, June 27, 2019 at 7-9.

<sup>76</sup> See Chinese Civil Code, Chapters XIV, Lease Contracts, XV Contracts for Financial Lease. An unofficial translation is available at <http://en.npc.gov.cn.cdurl.cn/pdf/civilcodeofthepeoplesrepublicofchina.pdf>. See UNIDROIT's legislative work designed to promote leasing internationally, World Leasing Yearbook (2018) at 44, 54, <https://world-leasing-yearbook.com/wp-content/uploads/2018/09/Unidroit-PDF.pdf>. (noting that "The Model Law on Leasing was considered by the Chinese authorities with a view to seeing if it contained provisions of interest to China").

<sup>77</sup> Chinese Civil Code, Art. 735.

- If the lessee fails to pay the lease amount within a reasonable time after being prompted, the lessor may either demand payment of all lease expenses or rescind the contract and repossess the leased property.
- When the lessor's ownership of the leased property is not registered, the lessor cannot contest a bona fide third party.<sup>78</sup>

China's enhanced regulatory framework for leasing has sustained the growth of financial leasing companies.<sup>79</sup>

Peru's Civil Code includes regulations on operational leasing, and Legislative Decree No. 299 (as amended) contains private law rules on a "financial lease" that are mostly aligned with the MLL. The decree specifies, for a financial lease:

- The lessee's right to select the supplier and the goods under the contract, along with the right to enjoy property rights and obligations as if they were the owner.
- Ownership may be transferred to the lessee at the end of the lease period.
- The risk of loss passes to the lessee upon entering into the lease.
- The assets given in financial lease are not subject to seizure, attachment, or encumbrance by administrative or judicial order against the lessee or the lessor.

The leasing market in Peru is currently valued at USD4 billion.<sup>80</sup>

The Viet Nam financial leasing law also follows key provisions of the MLL in its decree regulating the operation of financial companies and financial leasing companies. Under the decree, the lessor remains the owner of the property (equipment) throughout the lease term and is unaffected by the lessee's bankruptcy. The lessee is responsible for selecting the leased assets, third-party suppliers, and the contract terms and conditions. The lessee bears all risk of loss of the leased assets, all expenses for maintenance or replacement of the leased assets, and is responsible for any damage caused by the use of the leased assets to others. The lessor takes no responsibility for the non-delivery of assets or failure to deliver the assets under the conditions agreed upon between lessees and suppliers. The decree also provides for the lessor to register financial leases, unlike the MLL.<sup>81</sup>

#### **D. Cape Town Convention/MAC Protocol**

The preceding challenges identified in the legal frameworks governing secured transactions and leasing across APEC economies illustrate the benefits that can be

<sup>78</sup> Id. Arts 742, 745, 747, 749, 750, and 752.

<sup>79</sup> See Fitch Ratings, *Leading China Financial Leasing Companies' Performance Steady amid Economic Headwinds*,

<https://www.fitchratings.com/research/non-bank-financial-institutions/leading-china-financial-leasing-companies-performance-steady-amid-economic-headwinds-20-08-2024>.

<sup>80</sup> APEC Workshop on Secured Finance to Improve Food Security, *supra* note 9 at 11, (Lourdes Chero Pacheco, Advisor, Ministry of Economy and Finance, Peru); DECRETO LEGISLATIVO N° 299, as revised, Arts. 4-6, 13,

<https://notariateran.com.pe/wp-content/uploads/2023/11/10.-Decreto-Legislativo-de-Arrendamiento-Financiero-Decreto-Legislativo-No-299.pdf>.

<sup>81</sup> Decree 39/2014/ND-CP dated May 7, 2014, on the operation of the financial company and financial leasing company (Chap. 3), Arts. 16-24; APEC Workshop on Secured Finance to Improve Food Security, *supra* note 9, at 13 (Nguyen Doan Trang, National Institute for Economics and Finance (Viet Nam)).

gained from implementing the MAC Protocol. The MAC Protocol provides a modern legal framework for the financing and leasing of agricultural (as well as construction and mining) equipment. Furthermore, it facilitates financing transactions, whether the equipment is sold to an end user, leased to an end user, or held in a dealer's inventory. It deals with other critical challenges, including (i) setting forth three alternatives for the rules governing immovable-associated equipment, (ii) efficient judicial and extra-judicial remedies, and (iii) insolvency protection. The other international standards either do not address these issues or provide only basic treatment.

As discussed above, no APEC economy has implemented the MAC Protocol. The Cape Town Convention and MAC Protocol complement domestic secured transactions frameworks and are relatively simple to implement. The MAC Protocol does not override domestic law. However, the treaty regime applies regardless of how these interests are classified under domestic law (e.g., whether they are considered security rights, whether domestic law requires additional formalities, etc.).<sup>82</sup> Arguably, APEC economies with modern secured transactions laws, such as Australia and Canada, would gain fewer benefits from ratification than those with unreformed laws, such as Indonesia and Viet Nam.

At the APEC EC October 2025 Workshop, both Indonesia and Viet Nam highlighted the potential economic benefits of implementing the MAC Protocol. The representative of Viet Nam recommended considering:

“ratification of the MAC Protocol under the Cape Town Convention to quickly establish an international framework for financing agricultural machinery.”<sup>83</sup>

Indonesia commented:

“Despite decades of public investment, only 21% of farmers access formal credit. Collateral requirements, limited insurance uptake, and low leasing penetration continue to restrict growth. Fertilizer subsidies have narrowed, and digital finance is hampered by rural connectivity gaps. These challenges are not just technical—they are structural, legal, and institutional.

...The government is exploring value-chain financing, regional cooperation, and legal innovations, such as the MAC Protocol—an international framework that could unlock equipment-based collateralization and attract foreign investment.

The MAC Protocol, in particular, could offer transformative potential. By enabling farmers to lease machinery without land-based collateral, it paves the way for affordable mechanization, improved productivity, and broader financial inclusion. Its adoption would require legal

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<sup>82</sup> APEC Workshop on Secured Finance to Improve Food Security, *supra* note 9 at 25 (Anna Veneziano, UNIDROIT).

<sup>83</sup> APEC Workshop on Secured Finance to Improve Food Security, *supra* note 9 at 13, (Nguyen Doan Trang, National Institute for Economics and Finance (Viet Nam)).

harmonization, judicial capacity building, and cross-sector coordination—but the payoff is substantial.”<sup>84</sup>

## E. Regulatory considerations

While this Study is primarily aimed at assessing the extent to which private law frameworks in APEC economies align with relevant international standards limited to private law, it is also important to consider broader regulatory aspects. These regulatory aspects include: (i) whether there is a licensing and supervisory framework for warehouse operators, (ii) whether prudential regulations are adequately tailored to banks – and in some cases non-bank financial institutions – operating in the agricultural sector, as well as (iii) whether there are overly burdensome lending requirements on borrowers, arising, for example, from regulations aimed at preventing money laundering and terrorism financing. Implementing international standards requires not only coordination with the existing private law framework but also with relevant regulatory regimes. The implementation of such standards may also provide an opportunity to review regulations and eliminate any unreasonable barriers to access to finance.

**Licensing and supervision of warehouses:** A robust system of licensing and supervision of warehouse operators is critical to a functional warehouse receipts system, fostering the trust and security lenders need to confidently extend credit against stored agricultural goods.<sup>85</sup> This regulatory oversight ensures the preservation of the collateral, mitigating risks for financial institutions. While the importance of a regulatory and supervisory framework is universally recognized, its implementation across APEC economies varies, with many, but not all, economies having established formal regimes.<sup>86</sup>

Several economies have instituted licensing regimes for warehouse operators as part of broader warehouse receipts reform. Indonesia, for example, has a well-defined licensing framework administered by the Commodity Futures Trading Regulatory Agency (discussed above in Section III-B). The Philippines has an accreditation system for agricultural warehouses, and Canada has a long-standing system of licensing and inspection for grain elevators, managed by the Canadian Grain Commission.<sup>87</sup> These systems are explicitly designed to support post-harvest financing while ensuring the quality of the stored commodities.

**Prudential regulations:** The primary importance of prudential regulations in agricultural finance lies in their role in risk mitigation.<sup>88</sup> By setting standards for capital

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<sup>84</sup> Id. at 13-14 (Irfan Adhitya Permadi, Associate Policy Analyst, Coordinating Ministry for Economic Affairs (Indonesia)),

<sup>85</sup> See, e.g., UNCITRAL-UNIDROIT Model Law on Warehouse Receipts with Guide to Enactment, Part IV Complementary Legislation (devoted to licensing and supervision of warehouse operators), [https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/mlwr\\_preprint.pdf](https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/mlwr_preprint.pdf).

<sup>86</sup> See, e.g. the World Bank’s Warehouse Receipts Index as applied to APEC economies, *supra* note 52, which includes measuring whether a licensing and supervisory regime for warehouse operators has been implemented.

<sup>87</sup> See Licensing, <https://www.grainscanada.gc.ca/en/licences/>.

<sup>88</sup> See Prudential Regulation and Supervision for Agricultural Finance (FAO), <https://openknowledge.fao.org/server/api/core/bitstreams/49d7f7e5-3b41-4b25-b645-a092ca0349c4/content>. See also policy statement from the U.S. Federal Deposit Insurance Corporation

adequacy, loan loss provisioning, and exposure limits, these regulations compel lenders to build buffers against the unique uncertainties of the agricultural sector.<sup>89</sup> This not only protects the financial institutions from insolvency but also shields the broader financial system from the ripple effects of agricultural downturns.<sup>90</sup> Without such safeguards, a widespread agrarian crisis could trigger a banking crisis, crippling the rural economy. To encourage lending to the agricultural sector without overly restrictive prudential requirements, various incentives may be offered, including preferential treatment of agricultural loans in the calculation of capital adequacy ratios and/or more flexible provisioning requirements for certain types of agricultural lending.<sup>91</sup>

At the APEC EC October 2025 Workshop, the growing importance of non-deposit-taking lenders in economies such as China; Mexico; and the U.S. was also emphasized. These economies often have a simplified regulatory framework compared to a prudentially regulated system. The capital required for each bank loan or lease is risk-based, and for MSMEs, it is generally 100% risk-weighted. As a result, capital efficiency drives banks to focus on higher-quality borrowers with lower capital requirements. Additionally, operational efficiency encourages banks to target larger segments and service offerings. A portfolio of large-ticket loans costs less to operate per person than a similar-sized portfolio made up of many small-ticket loans. In the absence of specialized systems and staff, operational risks increase, and confidence in specialty products diminishes.<sup>92</sup>

**Requirements on borrowers:** A web of financial regulations, including those aimed at preventing money laundering and terrorism financing,<sup>93</sup> can create significant hurdles for agricultural borrowers, especially smallholder farmers, in accessing finance.<sup>94</sup> While designed to protect the integrity of the financial system, these regulations often impose documentation and formalization requirements that many in the agricultural sector find difficult, if not impossible, to meet.<sup>95</sup> The vast majority of smallholder farmers in the APEC region operate within the informal economy.<sup>96</sup> A significant first step is to help smallholder farmers move into the formal sector so they

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(“Given the potential volatility in the agricultural sector, prudent risk management practices are necessary to ensure that agricultural credits are originated and administered consistent with sound lending standards.”), <https://www.fdic.gov/news/financial-institution-letters/2020/fil20005a.pdf>.

<sup>89</sup> Id.

<sup>90</sup> Id.

<sup>91</sup> Id.

<sup>92</sup> APEC Workshop on Secured Finance to Improve Food Security, *supra* note 9 at 28, (Keith Rodwell, Alta APAC); Id. at 29 (Chris Wohler, ABAC Financial Infrastructure Development Network).

<sup>93</sup> See, e.g., Regulations Governing Anti-Money Laundering of Agricultural Financial Institutions in Chinese Taipei, [https://en.afna.gov.tw/view.php?theme=web\\_structure&id=63](https://en.afna.gov.tw/view.php?theme=web_structure&id=63).

<sup>94</sup> See AML/CFT Regulation: Implications for Financial Service Providers that Serve Low-income People (World Bank and CGAP, 2005), <https://documents1.worldbank.org/curated/en/497161468140979952/pdf/361690AML0CFT0regulation01PUBLIC1.pdf>.

<sup>95</sup> See The Role of Digital Identification in Agriculture: Emerging Applications (World Bank, 2018), <https://documents1.worldbank.org/curated/en/655951545382527665/pdf/The-Role-of-Digital-Identification-in-Agriculture-Emerging-Applications.pdf>.

<sup>96</sup> See Human Capital Investment: Key in Navigating the Shift from Informal to Formal Economy (APEC, 2024), <https://www.apec.org/press/blogs/2024/human-capital-investment-key-in-navigating-the-shift-from-informal-to-formal-economy#:~:text=Three%2C%20we%20aspire%20to%20adopt,this%20already%20adopted%202024%20deliverable>.

can access financing from banks and other financial institutions. The UNCITRAL instruments on simplified business registration and simplified corporate form are key instruments in that regard.<sup>97</sup> Additionally, small businesses often lack official land titles (a primary source of collateral), registration documents for their farms, and the detailed business records required by formal financial institutions. International agencies such as the Financial Action Task Force (FATF) have recently issued guidance to economies on how to balance the goal of combating money laundering and terrorism financing with financial access and excessive requirements for small businesses.<sup>98</sup>

**Accounting and Taxation:** The MLL is limited to the private law aspects of leasing and does not address the fiscal aspects of leasing operations, nor the structure and regulation of lessors.<sup>99</sup> Nonetheless, the development of financial leasing in an economy is also highly dependent on taxation laws. IFC's experience has shown that the tax treatment of leases for both the lessor and the lessee is a major determinant of whether an economy develops leasing as a successful financial product. IFC has found that those economies with laws that create no discernible tax treatment differences between finance leasing and bank loans have the most vibrant leasing sectors. Thus, a critical approach to drafting leasing tax legislation is to create a level playing field between leasing and other forms of credit.

## V. Conclusion: Toward a Holistic Implementation Strategy

This Study highlights the key features of the four international standards issued by UNCITRAL and UNIDROIT, which provide a modern framework to facilitate agricultural financing. These instruments have the potential to enhance agricultural finance and food security significantly. They also offer flexibility, allowing them to be tailored to the specific needs of APEC economies.

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<sup>97</sup> UNCITRAL Legislative Guide on Key Principles of A Business Registry, [https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/lg\\_business\\_registry-e.pdf](https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/lg_business_registry-e.pdf); UNCITRAL Legislative Guide on Limited Liability Enterprises (2022), [https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/22-01230\\_final\\_ebook-corr.pdf](https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/22-01230_final_ebook-corr.pdf). The instruments are designed to encourage informal businesses to move to the formal sector through simplified business registration and a simplified business form. This has also been a focus of APEC work under its Ease of Doing Business initiative. See Simplified Business Registration and Incorporation: Filling the Gaps (2017), [https://mddb.apec.org/Documents/2017/EC/WKSP3/17\\_ec\\_wksp3\\_004.pdf](https://mddb.apec.org/Documents/2017/EC/WKSP3/17_ec_wksp3_004.pdf).

<sup>98</sup> See FATF Guidance, Financial Inclusion and Anti-Money Laundering and Terrorist Financing Measure (2025), <https://www.fatf-gafi.org/content/dam/fatf-gafi/guidance/Guidance-Financial-Inclusion%20-Anti-Money-Laundering-Terrorist-Financing-Measures.pdf.coredownload.pdf> at para. 158 (noting that when the provision of accounts to legal entities, such as small businesses, are assessed to be lower risk, the requirements (beneficial ownership) can be adjusted). See also *Id.* at 17 n. 50 (“the Better than Cash Alliance worked with Indonesia’s government and cocoa sector to propose a strategy for digitising payments throughout certified supply chains and tailored digital financial products to drive the financial inclusion of small cocoa farmers, who are almost exclusively paid in cash, underbanked, and face a significant credit gap that results in a negative cycle of reduced income and falling profits. Digitising payments in the cocoa sector provide end-to-end financial transparency and would also help global cocoa processors verify where their product is sourced.”).

<sup>99</sup> Model Law on Leasing, preamble. These issues are beyond the usual purview of UNIDROIT, which is generally limited to private international law matters.

**The** Study included a high-level benchmarking of those standards against the domestic frameworks of APEC member economies. The purpose of this Study is thus to alert policymakers to the deficiencies and deviations of their domestic frameworks from these international standards. However, this Study does not provide concrete solutions for a specific APEC member economy, which would necessitate a detailed diagnostic. In several economies, such diagnostics, especially concerning the challenges in accessing credit, have been conducted by other institutions, such as the Asian Development Bank and the World Bank Group.

APEC economies are encouraged to holistically review their domestic frameworks and craft legislative solutions for specific credit products that aid the agricultural sector, from pre- to post-harvest finance. For instance, a secured transactions law can facilitate lending against commodities stored in a warehouse only when underpinned by a modern warehouse receipts law and an appropriate regulatory/licensing regime. A leasing law that facilitates equipment leases to end-users would be strengthened by a modern secured transactions law, enabling efficient collateralization of lease payments (receivables) that sellers/dealers can use to acquire more equipment.

The MLST and MLWR require a technological infrastructure in the form of a registry, which may pose implementation challenges, as illustrated by the case of the Philippines. Furthermore, for regional and international value chains that move commodities across borders, laws should contain predictable conflict-of-laws rules that determine the law applicable to the perfection and priority of security rights. APEC member economies should also supplement these laws with robust judicial enforcement remedies to supplement the availability of extra-judicial remedies, as well as to deal with some aspects of insolvency that these model laws do not cover.

The MAC Protocol makes high-value agricultural equipment easier to finance using secured lending or leasing. It benefits not only farmers but also equipment dealers, manufacturers, and financiers. It offers a distinct set of benefits that will enable APEC member economies to address these challenges promptly and without disrupting the underlying domestic framework. Furthermore, it will not require a significant investment in building the registry infrastructure, as a single international registry will be operational under the MAC Protocol. Through declarations, APEC member economies may tailor their rules to more closely align with the policies and practices underpinning their domestic markets.

Financing and leasing of agricultural equipment are relatively straightforward financing products that do not require extensive expertise or administrative costs, such as those associated with inventory monitoring and management. For lenders in many markets that primarily finance motor vehicles, embracing these practices may require relatively modest capacity-building. APEC member economies with deficient financing and leasing frameworks are thus encouraged to consider ratifying the MAC Protocol, as well as the remaining three international standards covered in this Study.

The APEC EC October 2025 Workshop recommended that APEC economies should consider the following measures to facilitate economic growth and improve food security:

- Conduct a comprehensive review of their domestic agriculture financing frameworks.
- Implement UNCITRAL and UNIDROIT international standards on secured transactions, warehouse receipts, and leasing to establish a modern framework that supports agricultural financing, both pre- and post-harvest.
- Implement those standards in a way that creates regional markets that enable cross-border flows of commodities, equipment, and technologies.
- Harness innovation, new technology, and digitalization to further strengthen the practical impact of the implemented international standards.
- Share best practices with other APEC economies for implementing standards, deploying credit products, etc.

The Workshop participants also recommended that APEC EC should help APEC economies facilitate economic growth & improve food security as part of its work on Structural Reform by:

- Continuing to promote international standards and support capacity building for secured transactions, warehouse receipts, and leasing law reforms through workshops, policy dialogues, and direct assistance to economies.
- Preparation of diagnostic assessments of agricultural finance legal frameworks in APEC economies.
- Providing technical assistance to APEC economies to support their implementation of international treaties and model laws (i.e., the MLST, MLWR, and MLL).
- Continued capacity building for economies, the private sector, and the judiciary to ensure the effective functioning of the new legal frameworks.
- Collaborating closely with international partners such as UNIDROIT and UNCITRAL to reform agricultural financing laws.
- Continuing to engage in cross-fora collaboration with other APEC entities, including the APEC Business Advisory Council (ABAC) and the Finance Ministers' Financial Infrastructure Development Network (FIND).<sup>100</sup>

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<sup>100</sup> APEC Workshop on Secured Finance to Improve Food Security, supra note 9 at 32-33.