



## **TECHNICAL SUMMARY**



## Warehouse Financing

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### Introduction

Agricultural production depends on inputs including seeds, pesticides, fertilizer, and Farmers, producers, and exporters can use proof of goods deposited in a warehouse to access loans from financial institutions – adding much-needed liquidity and working capital to operations.

This brief provides an overview of warehouse financing – comparing formal Warehouse Receipt Systems against Collateral Management Systems. It considers how each system operates, their respective benefits, limitations, and risks, with two illustrative case studies providing examples of practical applications in developing countries.

# What is a Warehouse Receipt System?

Demand for agricultural loans in developing countries is high. All too often though, farmers and producers are unable to obtain credit to purchase agricultural inputs and invest in equipment due to lack of collateral – limiting productivity and business growth.

However, collateral constraints can be circumvented by using moveable assets ranging from equipment to small infrastructure and post-harvest commodities as a secondary repayment source – a form of financing that has become increasingly popular in recent years.

A Warehouse Receipt System (WRS) is a form of secured lending to owners of commodities stored in a warehouse and assigned to a bank through warehouse receipts.

Financing is based on the receipt issued by the warehouse operator once the depositor (an agricultural producer, trader, processor, or exporter) has stored their commodities in the warehouse. The warehouse receipt gives the bank the security of the goods until they have been sold and the proceeds collected.

The process begins when a depositor brings his goods to a warehouse – public, private, or field. The warehouse operator inspects the commodity, and issues a receipt – paper or electronic. The receipt typically states the following:

- Name of depositor
- Time of delivery
- · Commodity type
- · Quantity and quality of commodity
- Warehouse location
- Related charges for storage services provided.

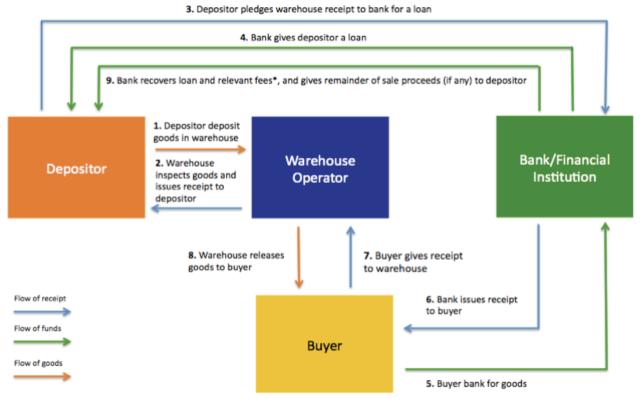
While the commodity is stored, the warehouse operator is responsible for keeping the commodity safe and only permitted to release it to the receipt owner.

As long as the depositor possesses the receipt, he or she has charge over the commodity. Depending on the nature of the warehouse receipt, the depositor can use it to obtain working capital until they sell the commodity.

Figure 1 gives an overview of the WRS and how a warehouse receipt can be pledged to a bank for a loan.

Given the limited collateral available, post-harvest commodities and warehouse receipts represent an important liquid form of security which banks can lend against.

With a well-run warehouse receipt system established, farmers and agribusinesses can choose whether to sell immediately after harvest, or store in a licensed warehouse and access finance against the stored commodities.



#### Warehouse Receipt Systems (WRS) - Pledged to Bank

\* Depending on the way the warehouse receipt is set up, warehouse fees could be paid by banks or buyers

#### Figure 1: Warehouse Receipt System

Significant upfront work is required to create, operate, and monitor a full warehouse receipt system.

Preconditions include:

- A legal environment that ensures easy enforcement vis-a-vis the security, where the receipt is a title document
- Reliable and high-quality warehouses that are publicly available
- A system of licensing, inspection, and monitoring
- · A performance bond and/or indemnity fund
- · Banks that trust and use the system
- Agricultural market prices that reflect carrying costs

- · Supportive public authorities
- Well-trained market participants.

And even with the **necessary preconditions** in place, risks remain. They include:

- Fraud or collusion
- · Credit and counterparty risk
- Storage risk and misappropriation by warehouse operators
- Price risks (given the volatility in agricultural commodity prices and government intervention)
- Marketing or buyer risks
- Legal risks concerning perfection of security, registration of prior claims, and enforceability

The case study at the end of this document – Tanzania/ NMB – illustrate how warehouse receipt schemes can thrive sustainably.

It should be noted that it is still possible for a WRS to work even when elements such as licensed warehouses, a central warehouse receipt registry, and comprehensive regulatory and legislative frameworks are not in place.

To make WRS more inclusive, local infrastructure is key. For smaller depositors, the cost of transporting goods to far-flung or difficult-to-reach warehouses can be prohibitive. Using field warehouses or co-ops can help reduce costs and encourage participation.

Currently, many warehouse receipt systems rely on paper receipts. However, strong arguments exist for the development of an electronic central registry – reducing the anxiety of holding a paper receipt that could be misplaced, stolen, or double-pledged, and making transactions faster and more secure.

Warehouse receipts can also be used as a form of trade finance. However, robust infrastructure, such as a central warehouse receipt registry, and strong regulatory and legislative frameworks may need to be in place first.

## **Collateral Management System**

A Collateral Management System (CMS) is another type of warehouse financing. CMS typically relies on the use of a Collateral Management Agreement (CMA) – a tripartite agreement between a bank, a depositor whose agricultural goods are stored in a warehouse, and a collateral manager appointed by the lending bank, typically a third-party service provider. The biggest challenge for the financing bank is validating warehouse receipts. If the warehouse is not large and reputable, employing a third-party collateral manager can help verify the location, quantity, and storage of the commodity – easing concerns but adding additional costs.

Like WRS, the process begins when a depositor brings their commodity to the warehouse. The collateral manager inspects it and issues a receipt, stating the quantity and quality of the produce deposited.

The stored commodity acts as collateral for a loan from the bank to the depositor. The arrangement is shortterm – lasting only for the period when goods are in the warehouse. Typically, the maximum loan amount is between 50-80% of the value of goods stored. The bank needs to consider potential price changes and liquidation costs in case of default. The bank, however, does not take control of the commodity held in the warehouse unless there is a failure to pay.

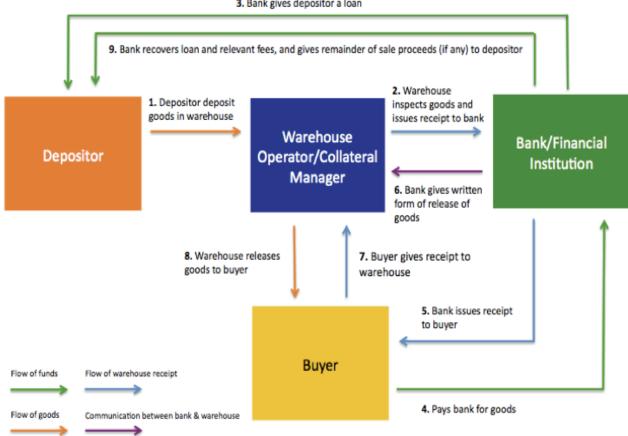
Figure 2 shows how a collateral management system works.

While the commodity is held in the warehouse, the collateral manager acts as custodian, responsible for ensuring quality and quantity are accurately monitored and reported.

The collateral manager will not release the goods to the depositor or a buyer until the bank provides a written form of release – usually only upon receipt of loan repayment or other payment assurance against its loan secured by the goods in storage.

In a CMS arrangement, the depositor is responsible for finding a buyer for his commodities. When a buyer is found, they pay the bank directly. The bank then subtracts any fees and charges and returns the balance, if any, to the depositor.

## **Collateral Management**



#### 3. Bank gives depositor a loan

#### Figure 2: Collateral Management System

The same risks outlined for warehouse receipts apply to CMA-backed financing, such as fraud, collusion, storage risks, credit risks, price volatility, and buyer risks.

However, as the bank maintains physical control over the commodity in storage via the collateral manager until loan repayment is secure, there is limited risk that the bank's security interest will not be perfected.

While CMS allows the depositor to obtain a loan based on movable commodity as collateral, it may not be suitable for all types of borrowers. A CMA is expensive to set up, and transaction costs can be prohibitive for a depositor who does not have sufficient volume of commodity, such as smallholder farmers and agricultural SMEs.

Nonetheless, agricultural SMEs might still benefit from CMAs. Banks in developing countries often provide financing to aggregators, processors, and exporters backed by agricultural commodities held in warehouses under collateral management agreements in the absence of a fully-developed warehouse receipt system (WRS).

# Comparison between WRS and CMS

#### **BENEFITS**

The Warehouse Receipt System (WRS) and the Collateral Management System (CMS) provide similar benefits to depositors and banks.

For depositors, WRS and CMA provide:

- Access to funding to improve business operations without using fixed assets for collateral
- A better match between short-term financing needs and collateral
- · Potential reductions in post-harvest losses
- · Curtailing of cheating on weights and measures.

For banks, WRS and CMS reduce lending risks to agricultural commodity producers. They also open up new markets to sell other financial products like insurance.

In areas without a reliable WRS in place, CMS can limit the risk that the bank's security interest will not be perfected, as the bank maintains physical control over the commodity in storage via the collateral manager.

While CMS mainly adds value to banks and depositors, WRS holds the following significant potential benefits for the agricultural marketplace:

- · Promotes the inclusion of small farmers
- Fosters development of the agricultural products marketplace, infrastructure, and institutions
- Can help increase food security.

#### LIMITATIONS & KEY CONSIDERATIONS FOR SUCCESSFUL IMPLEMENTATION

The main limitation of CMS is the relatively high transaction costs, while WRS is a complex system serving a variety of stakeholder groups with sometimes competing interests.

Additionally, the success of WRS is highly dependent upon a robust regulatory and legislative framework, which is non-existent in many developing countries, and requires a central warehouse receipt registry (ideally electronic) that prevents fraud and corruption.

Both WRS and CMS typically rely on large warehouses located in or near urban areas, often far from production areas. Transportation costs often deter smaller enterprises.

Both systems require well run, high quality warehouses and a high level of trust and acceptance by stakeholders.

## Case study – WRS

## NMB Tanzania Cashew and Coffee Warehouse Receipt Finance

NMB (National Microfinance Bank) has become Tanzania's largest financial services provider, with a customer base of more than 1.4 million people and growing. Rabobank acquired a 35 percent stake in the NMB in 2005, when the bank was partially privatized by the Tanzanian government.

Warehouse receipt secured loans are given to registered farmer groups, individual farmers, commodity traders, and businesspersons dealing with non-perishable commodities such as coffee, maize, cashews, and nuts. A warehouse receipt financing system was developed together with technical assistance from Rabobank in early 2007. Funding is extended against a commodity stored in the bank's controlled and authorized warehouse after submission of a warehouse receipt. The bank holds the crops in the warehouse until buyers purchase and pay for the crops – NMB can provide funds to farmers to enable them to continue preparing for the next crop while their goods are being stored.

The bank provided a total of USD 16 million in facilities to Primary Cooperative Societies (PCS) in the coffee, cashew, maize, sunflower, and sesame sectors. Around 110,000 farmers benefited in 2010.

Raw cashew nut prices for the farmers at the farm gate could be as low as TZS 300 per kg. Thanks to the warehouse receipt system, farmers can sell their cashew nuts through primary co-operative societies, who in turn auction the products in bulk. Cashew nut farmers can achieve an average price of up to TZS 710 per kg. This scheme benefits from a 50% guarantee provided by the Government. To date, NMB has incurred no losses under the warehouse receipt financing and therefore has not had to call the Government guarantee.

## Case study – CMS

In 2013, Burkina Faso's Ministry of Economy and Finance, Ministry of Agriculture and Food Security, and KfW started initiatives to use community inventory credit and collateral management to improve food security and develop the local agricultural value chain.

Several banks, Ecobank and Coris Bank in particular, became interested in using the collateral management instrument to provide agricultural financing. Together with collateral management companies such as the Bollore Group, SEGAS-BF, Expertis SA, and Auxigages SA, banks in Burkina Faso provided financing using agricultural commodities such as rice, cotton, sesame, cashew, hibiscus, and maize as security.

Consequently, collateral management in Burkina Faso has attained a level of professionalism. All associated companies now have insurance cover for fire, water damage, and theft. Most companies also have professional indemnity insurance in place covering fraud, errors, and omission – piquing the interest of banks in the country who are now more inclined to provide financing where agricultural commodities, under the custody of collateral managers, are used as collaterals.

Unlike some collateral management agreements in other parts of the world, managers in Burkina Faso charge relatively affordable fees. For instance, Expertis SA charges rice millers between 1.5 and 3% of the value of the financing provided by the bank. More affordable prices have led to increased willingness of farmers to pay for collateral management in order to access finance.

The use of collateral management has led to the development of the local agricultural value chain. SEFAS-BF provides collateral management services for rice in Bagre. Initially it worked only with depositors and banks – now it is working with a union of women's groups that has its own parboiling facility.

While the instrument has been used successfully in Burkina Faso, there are still a number of challenges. Newer collateral management providers lack experience and require more training to make them effective custodians. There is also a shortage of available warehouses and the scale of operation remains small. As in many African countries, government intervention that distorts the market remains a very real risk.