Module Six:
Warehouse Receipts and Collateral Management

Introduction to the Module

This Module is designed for Cereal Traders who are or intending to venture into agricultural output marketing which will necessitates sufficient knowledge in warehouse receipting and collateral management. The module aims to equip participants with the requisite understanding of warehouse receipt systems and the management collaterals emanating from these instruments for profitable undertaking.

The lack of access to credit is a severe constraint for many traders and farmers alike. Warehouse receipts are an important and effective tool for creating liquidity and easing access to credit. Such schemes also offer additional benefits such as smoothing the supply and prices in the market, improving grower incomes, and reducing food losses. The Module describes the steps of interaction involved in a warehouse receipt system, sets out the essential questions to be asked regarding the critical conditions for its success and illustrates the roles of the key actors in setting up and running such a system.

The Module will provide valuable tips on contracting through warehouse receipt systems and critical minimum requirement in warehousing management.

In many developing countries past government interventions in commodity markets helped reduce the economic returns to private storage or removed the need for private credit. But with the opening of markets and the liberalization of trade, such instruments as warehouse receipts are becoming important in the transition to markets, serving to reduce uncertainty and enhance efficiency. For warehouse receipt systems to work well, government and industry must build a legal and institutional framework to guarantee performance and minimize transaction costs.
The warehouse receipts system, also known as inventory credits, can facilitate credit for inventory or products held in storage. These receipts, sometimes known as warrants, when backed by legal provisions that guarantee quality, provide a secure system whereby stored agricultural commodities can serve as collateral, be sold, traded or used for delivery against financial instruments including futures contracts. These receipts are documents that state the ownership of a specific quantity of products with specific characteristics and stored in a specific warehouse.

Such a warehouse receipts system has the benefits of:

- mobilizing credit to agriculture by creating secure collateral for the farmer, processor, and trader
- smoothing market prices by facilitating sales throughout the year rather than just after harvests
- reducing risk in the agricultural markets, improving food security and credit access in rural areas
- increasing market power of small-holders by enabling them to choose at what point in the price cycle to sell their crops
- helping to upgrade the standards and transparency of the storage industry since it requires better regulation and inspection
- helping to create commodity markets which enhance competition, market information and international trade
- providing a way to gradually reduce the role of government in agricultural commercialization
- contributing to lower post harvest losses due to better storage conditions (i.e. induces farmers to store in more appropriate warehouses)
- lowering transaction costs by guaranteeing quantity and quality
- increasing quality awareness (assuring the quality deposited is the same as the quality withdrawn).

Such schemes are relatively simple and exist in two basic variations. A one-part receipt is preferred in Common Law countries (i.e. the UK, the Commonwealth Countries and the US model) whereas two-part receipts are preferred in Civil Law countries (majority of those that do not follow the English model i.e. most of Europe and Latin America, and Francophone Africa). The basic difference is that full ownership documentation is provided for with either one or two documents. The cycle of interactions involved in a typical warehouse receipt scheme involving a two-part receipt contains the following steps:
1. After harvest the farmer deposits his crop in a licensed warehouse and receives a Certificate of Title (CT) and a Certificate of Pledge (CP). The warehouse will only release the crop to the owner of both documents.

2. The farmer applies to the bank for a loan and in exchange for the money issued he gives the bank the CP as security (and the CT for safekeeping so that the bank knows who is the owner of the crop).

3. Before the loan matures (typically up to nine months), the farmer sells his crop to a processor or (or trader) by selling the CT (on consultation with the bank)

4. When the loan matures, or when he needs the crop, the processor repays the loan to the bank and in exchange receives the CP.

5. The processor, now owning both the CT (from the farmer) and the CP (from the bank) can collect the crop from the warehouse.

The Module is estimated to take 2 hours and 35 minutes. However, since it is linked to the Module No. 4 on Commercial Grain Handling, Storage and Warehousing in the course, it may vary depending on how Participants understood the earlier Module 4 and the level of comprehension of participants.
### Warehouse Receipts and Collateral Management - Module Guide

<table>
<thead>
<tr>
<th>Sessions</th>
<th>Training Methods</th>
<th>Training Materials</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Participants Handout 2: <em>Types of Storage Facilities</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participants Handout 3: <em>Storage structures, selection &amp; Design</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participants Handout 4: <em>Requirements of standard store</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participants Handout 5: <em>Sample Pallet in Warehouses.</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participants Handout 6: <em>Stacking in Warehouses</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participants Handout 7: <em>Local Pests of Cereals &amp; Pulses</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participants Handout 8: <em>Cereals &amp; Pulses: Pests and Control</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participants Handout 9: <em>Warehouse Fumigation Procedures</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participants Handout 10: <em>Sample Warehouse Inspection Form</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participants Handout 11: <em>Commodity Inspection</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participants Handout 12: <em>Recommended Warehouse Equipment</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participants Handout 14: <em>WRS issues by EAGC</em></td>
<td></td>
</tr>
<tr>
<td>3. Warehouse Receipts</td>
<td>Discussion with participants and presentation</td>
<td>Participants Handout 15: <em>WRS – EAGC Model</em></td>
<td>15 Mins.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participants Handout 16: <em>WRS - Benefits</em></td>
<td></td>
</tr>
<tr>
<td>4. Other Warehouse Receipt Systems</td>
<td>Presentation</td>
<td>Participants Handout 17: <em>WRS – ACE Example</em></td>
<td>10 Mins.</td>
</tr>
<tr>
<td>5. Warehouse Receipt System and the Law</td>
<td>Presentation and discussions with participants</td>
<td>Participants Handout 18: <em>Legal Regulations for Warehouses</em></td>
<td>10 Mins.</td>
</tr>
<tr>
<td></td>
<td>Warehouse Receipting System (WRS)</td>
<td>Presentation and exercise</td>
<td>Participants Handout 19: <em>Warehouse Certification</em></td>
</tr>
<tr>
<td>---</td>
<td>---------------------------------</td>
<td>---------------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>6</td>
<td>Preconditions for Viability of WRS</td>
<td>Presentations and Discussion</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Uses of Warehouse Receipts in the USA</td>
<td>Presentation and discussion</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Review of Module</td>
<td>Participants’ questions and comments Facilitator’s summary</td>
<td>Participants Handout 20: <em>Warehouse Management – Module summary</em></td>
</tr>
<tr>
<td>9</td>
<td>TOTAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. **Welcome and Introduction**  
*(Presentation by the Facilitator: 15 minutes)*

Welcome to the Module “Warehouse Receipts and Collateral Management”. My name is ____; I’ll be with you during our session, which is scheduled to last approximately two hours. I also welcome any questions you may have outside the session times pertaining to Warehouse Receipts and Collateral Management and the entire Structured Trading Systems Course.

A **warehouse receipt** is a document that provides proof of ownership of commodities (e.g., bags of maize grain, or bars of copper) that are stored in a warehouse, vault, or depository for safekeeping.

Warehouse receipts may be negotiable or non-negotiable. Negotiable warehouse receipts allow transfer of ownership of that commodity without having to deliver the physical commodity. Most warehouse receipts are issued in negotiable form, making them eligible as collateral for loans. Non-negotiable receipts must be endorsed upon transfer. Warehouse receipts would, under normal circumstances, be regulated by the legal statutes in a given country.

Warehouse receipts also guarantee existence and availability of a commodity of a particular quantity, type, and quality in a named storage facility. It may also show transfer of ownership for immediate delivery or for delivery at a future date. Rather than delivering the actual commodity, negotiable warehouse receipts are used to settle expiring futures contracts.

Warehouse receipts may also indicate ownership of inventory goods and/or unfinished goods stored in a warehouse by a manufacturer or distributor.

What do you hope to learn from this Module? The objectives of this module are to understand the following;

1. What a Warehouse Receipt System is.
2. Sample Warehouse Structures and Stacking Systems and Management.
3. Interactions involved in a Warehouse Receipt System.

Introduce the Module: “Warehouse Receipts and Collateral Management” and let Delegates mention their expectations from the Topic.

List Participants’ points on a flipchart, entitled “Expectations”. Refer back to the list of problems and expectations throughout the Module when relevant.

Distribute Participants Handout 1: *Module Objectives*. 
5. Roles of Key actors in setting up a Warehouse Receipting System

### 2. Warehouse Receipts and Collateral Management
(Presentation and Discussion: 60 minutes)

**Introduction: The XYZ Farmers Group**

The XYZ farmers’ group has harvested 100 tons of maize and dried it in the sun. They know that the price immediately after harvest is low. They realize that if they wait a few months before selling, it is likely to be much higher. But they need cash, now. The members have school fees to pay. They need to buy fertilizer, seed and other inputs for the next season. If they do not sell their maize immediately, they cannot buy these items. What can they do?

They bring their grain to the ABC warehouse. They want to store it there for a few months in the hope that the price will go up. The warehouse operator runs a warehouse receipt system. When the farmers deposit their grain, he will give them a warehouse receipt. The farmers can then take that receipt to a bank and use it to get a loan, which they can use to buy the inputs they need and pay for other expenses. The bank will lend them this money because it knows that the grain exists, and that the warehouse is holding it securely. If the farmers do not repay the loan, the bank can go to the warehouse with the receipt and ask the warehouse operator to sell the grain and pay the bank.

The farmer group watches the market price carefully and decides when to sell the grain. They make sure the price is high enough to cover the cost of storage, the interest on the loan, as well as some profit.

The warehouse receipt has another advantage. Once they have paid off the loan, the farmers can sell the receipt to a trader, who can go to the warehouse to claim the grain. Because the receipt shows the amount of grain and its grade, the trader knows how much the grain is worth. The farmers and trader can buy and sell the grain without having to pay for transporting it.

That makes trading a lot easier for everyone.

**Warehousing: Question to Participants:**

Introduce The XYZ Farmers Group Case Study.

Have participants discuss among themselves what they understand by Warehousing.

Elicit participants’ responses and record these on Flipchart or Blackboard.

Distribute:
- Participants Handout 2: Types of Storage Facilities
- Participants Handout 3: Storage structures, selection & Design
- Participants Handout 4: Requirements of standard store
- Participants Handout 5:
What therefore do you understand as a Warehouse?
Describe the common characteristics of a Warehouse.

What are the Recommended Warehouse Equipment?
What are the possible functions of Warehouses?

Possible responses:

A **warehouse** is a commercial building for storage of goods. Warehouses are used by manufacturers, importers, exporters, wholesalers, transport businesses, customs, etc. They are usually large plain buildings in industrial areas of cities and towns and villages. They usually have loading docks to load and unload goods from trucks. Sometimes warehouses are designed for the loading and unloading of goods directly from railways, airports, or seaports. They often have cranes and forklifts for moving goods, which are usually placed on ISO standard pallets loaded into pallet racks. Stored goods can include any raw materials, packing materials, spare parts, components, or finished goods and produce associated with agriculture, manufacturing and production.

Warehouses are intended for the storage and physical protection of goods. In the context of grain storage, 'goods' primarily refers to bagged grain. It may also include materials and equipment required for the packaging and handling of bagged grain, and storage pest control; although, in an ideal situation, such items should be stored separately.

All warehouses consist of a floor, walls, a roof, and one or more entrances. However, they can vary considerably in the detailed composition and construction of these basic components; and may include others, such as ventilators, windows, artificial lighting, etc. The various combinations of features possible have to be considered very carefully, together with other factors relating to location, intended use, etc., when planning the construction of a warehouse.
Paramount importance should be attached to ensuring that the quality of the commodity to be stored will not be affected by physical factors such as moisture and heat. Wherever possible and practical, the design of the warehouse should incorporate features which will protect its contents from attack by rodents and birds, and facilitate the use of insecticides.

The warehouse should also be easy to clean and maintain (there is no point in using components which are not readily replaceable or repairable); and it should provide good working conditions.

**Functions of Warehouses:**

**Scientific storage:** In Warehouses the stored produce is protected from the vagaries of weather and rodents, insects, pests’ etc. and prevents quality and quantity losses.

**Financing:** Warehouses meet the financial needs of the persons who store the produce by providing value of the goods stored.

**Price stabilization:** Warehouses help in regulating the price levels by regulating the supply of goods in the markets. More goods from the buffer are released when supplies are less and less is released when supplies are more in the markets. Thus the demand levels are monitored.

**Market Intelligence:** Warehouses offer the price, supply and demand information to the market users so as to develop selling and buying strategies by them.
3. **Warehouse Receipts**

(Group exercise, presentations and Discussion: (15 minutes))

**WAREHOUSE RECEIPTS**

A warehouse receipt (Figure 13) is a document that proves that someone has deposited a certain amount of grain (or some other commodity) in a specific warehouse. The person who deposits the grain is called the depositor. This may be a farmer or group of farmers or, more usually, a processor or trader. The receipt may be single sheet of paper, or it may be in electronic form.

![Image of a warehouse receipt](image)

Figure 23. A warehouse receipt issued by the Eastern Africa Grain Council.

**Box 13. WAREHOUSE RECEIPTS**

**Warehouse receipt:** Proof that a certain weight, quantity and quality (grade) of grain has been deposited in a particular warehouse.

**Depositor:** The person or group (such as a farmer, farmers’ association or trader) that puts the grain in the warehouse.

**Warehouse operator:** The person or company that runs the warehouse where the grain is stored, and who issues the receipt.

**How it works**

Distribute Participants Handout 13 and 14.
A warehouse receipt system involves various parties: the depositor of the grain, the warehouse operator, the bank (if a loan is required), and a buyer.

Figure 24 shows how a simple warehouse receipt system works.

FIGURE 24

FIGURE 24. How a warehouse receipt system works

Who owns the grain?

The depositor owns the grain listed on the warehouse receipt – unless he or she sells the receipt to someone else.

The warehouse operator is not allowed to move the grain or dispose of it without the receipt holder’s permission. Even if the warehouse goes bankrupt, the grain is safe because the legal title to the grain remains with the holder of the receipt.

When the depositor brings the receipt back to the warehouse, the operator must allow him or her to take the grain. If the warehouse agreement specifies it must be “identity preserved” (Chapter 4), it must be exactly the same grain.

Otherwise, it may be other grain of the same grade and quality. If for any reason the grain has been spoiled or stolen, the warehouse operator has to reimburse the depositor.
Figure 25. Warehouse receipt systems make it possible to get loans for stored grain

Using a warehouse receipt to get a loan

A depositor can use a warehouse receipt to get a loan from a bank in two ways:

 beğen The depositor takes the receipt to the bank. The bank takes the receipt as collateral, and gives the depositor a loan. Once the loan has been repaid, the bank returns the receipt.

 beğen The warehouse operator has an agency arrangement with the bank, and the depositor can ask him to arrange for a bank loan against the security of the receipt.

If the depositor does not repay the loan, the bank can sell the grain and get its money back.

For this system to work, the bank has to recognize that the receipts are valid as collateral, and it has to trust the warehouse receipt system and accept the risks involved. Some banks are willing to do this; others are not.

Selling the grain

The receipt holder can decide to sell the grain he or she has stored in a warehouse. For the receipt holder to make a profit, the selling price must be high enough to:
Cover the storage costs charged by the warehouse operator, plus the loss of weight caused by drying and cleaning and while in storage.

Cover the interest rate charged by the bank for their loan, plus the cost of making arrangements for the loan.

Provide some profit for the depositor.

The bank may be the central point for settling the financial transactions. In that case there is a four-way relationship between the depositor, the bank, the warehouse operator and the buyer (Figure 26).

FIGURE 26: XXXX

FIGURE 26. Selling a warehouse receipt that is used as collateral for a loan

And if the price does not go up?

The price of grain does not always rise in the months after harvest. In some years it stays the same, or it may even fall. What if this happens, and the grain does not fetch as much as expected when it is sold? Here are some ways that depositors and lenders can reduce the risk of a loss:

Banks and other lenders do not lend the full value of the warehouse receipt. Usually, a loan covers about 60% of the value of the grain at the time it is deposited in a warehouse.

Banks and collateral managers monitor the market prices of grain carefully using available market information (see Chapter 5).

Lending contracts permit lenders to vary the amount they lend depending on the price. They may require more collateral if the market price falls.

Forward contracts (contracts to buy a certain amount of grain at some time in the future) may specify a minimum acceptable purchase price.

Types of warehouse receipts

There are lots of different types of warehouse receipts. Some are transferrable, meaning they can be transferred for one person or company to another.
Depositors need to make sure they know what type of receipt they are getting:

☞ Non-negotiable receipts. Some types of warehouse receipts are “nonnegotiable”.

This means the depositor him- or herself (or someone they authorize) has to go to the warehouse to pick up the grain.

☞ Negotiable receipts. Other warehouse receipts are “negotiable”. The receipt document itself conveys the rights to the grain. That means the depositor can sell it to a buyer, who can then go to the warehouse to collect the grain. This is risky because someone may steal or forge a paper receipt and go to pick up the grain or take out a loan. (This problem may soon be a thing of the past as records become electronic, which allows extra safeguards to be built in.)

☞ Transferrable receipts. Other types of receipts are “transferrable”. They are more restricted than the fully negotiable type above. The depositor is required to countersign it before giving it to someone else, who can then go to the warehouse to pick up the grain. The new owner must return the countersigned receipt to the warehouse operator, who cancels the original receipt and issues a new receipt in the name of the new owner.

Ideally, a country will have laws (see below) that recognize a warehouse receipt as a legal document of ownership. That gives the buyer, and the bank, confidence that the receipt represents real grain in a real warehouse. There is no need to go and check that it actually exists.

The warehouse operator The warehouse operator has to keep the grain in a safe place, clean, dry and free of pests. He or she must return the grain to the depositor, of the same type and quality, as specified on the warehouse receipt. If the operator fails to do this, he or she has to compensate the depositor for the grain.

The depositor will get 95–98% of the weight of the grain back, depending on the length of storage and the moisture levels at time of deposit and collection. Details should be specified on the
warehouse receipt. Where grain is stored in bulk, then the owner of the receipt will receive a guaranteed amount. If it is stored in bags, the same numbers of bags are returned but they may weigh slightly less (or more, depending on the commodity and humidity).

Why not 100%? Because every time the grain is handled (for example if it goes through cleaning equipment), some is lost. If it is dried, it loses weight. It can also lose weight over the storage period. With storage in tropical zones, however, it might actually increase in weight slightly. See Module 4 for details.

The depositor has to pay for the costs of storing, cleaning and drying the grain, and any other services. If the depositor does not pay, the warehouse operator can keep the grain until payment is received.

If the depositor does not pick up the grain within a reasonable period, the warehouse operator can sell the grain to pay for the unpaid expenses. The operator will then pay the remainder of the proceeds to the depositor.

4. **Other Warehouse Receipt Systems**
   *(Presentation and Discussions 10)*

OTHER WAREHOUSE RECEIPT SYSTEMS

Collateral management

Collateral management puts the grain under the control of a trusted, independent third party – the collateral manager. The grain stays in the owner’s own warehouse. But the collateral manager takes control of the warehouse and prevents the owner from disposing of the grain without permission. This is also known as “field” warehousing and storage services (see Module 4).

The collateral manager checks the grain, makes sure that it matches the records, then takes control of it on behalf of the owner and the lender.

There are specific requirements for this:

- The manager inspects the warehouse and makes sure it fits the requirements.

Distribute Participants Handouts 16.

Distribute Participants Handout 15.
The manager signs a lease agreement for the warehouse, taking legal control of it.

FIGURE 27: XXXXX
FIGURE 27. How collateral management works

The collateral manager puts locks and seals on the warehouse to prevent anyone (including the owner) from taking grain out.

- The manager puts up notices saying who now controls the warehouse and its contents.

Warehouse receipts are fairly new in Africa, so some countries do not yet have the necessary legislation in place (though countries with ports invariably have bonded warehouses, and the stock they contain can be used as collateral).

Three-way agreements between the lender, borrower and collateral manager make collateral management possible even if there is no legislation in place.

Under these agreements, the lender and borrower both agree that the collateral manager is a suitable organization to provide the service. Some countries have enacted warehousing laws, but collateral management through such three-way agreements still dominates the markets. This is because lenders in such countries are not yet confident enough in the licensed warehouse operators and regulators of the receipt systems.

**Joint key holding**

Some banks are prepared to lend money to longstanding, trusted customers if the grain used as collateral is stored in a warehouse belonging to the borrower. The borrower gives a key to the bank so it can check the grain at any time. This practice is used in some countries, but is rare in Africa.

<table>
<thead>
<tr>
<th>Box 14. BAILMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warehouse receipt finance, including collateral management, depends on the legal concept of bailment.</td>
</tr>
<tr>
<td><strong>Bailment:</strong> Where one person owns the property (in this case, the grain), but someone has it in his or her possession.</td>
</tr>
</tbody>
</table>
Bailer: The person who owns the grain: the depositor.
Bailee: The person who stores the grain: the collateral manager

Conditions for bailment
Two conditions are necessary for bailment to exist.
- The depositor relinquishes possession of the grain.
- The collateral manager assumes “exclusive, continuous and notorious possession” of the grain.

Sounds complicated? That is because it is not possible to do warehouse receipt finance in an amateurish or haphazard manner. These are highly structured processes and depend on the right legal conditions. They have to be handled professionally – otherwise they will not work!

Exclusive, continuous and notorious possession
No one else has access to the grain......as long as the bailment lasts.
Notices announce that the grain is under the collateral manager’s control

In Asia, some banks will even give short-term operating credit to trusted rice traders that declare their own collateral, without any inspection.

Community cereal banks
This is where an organization (such as a farmers’ group or cooperative) puts its grain in a warehouse which it manages itself. Some communities do this just so they can store their grain safely. Others do it so they can then go to a bank or microfinance institution to ask for a loan, using the grain (the inventory) as collateral. In French this is often called “warrantage”.
Cereal banks were widely promoted in the Sahel in the 1970s and 1980s.

They were nearly always sponsored by an outside agency, such as an NGO, which helped finance the construction of a small warehouse, often meeting material costs while villagers provided
the labor. The NGO would then provide funds to the village to purchase grain after harvest when prices were low, with the plan that the grain would be sold in the village when prices increased during the lean season. The returns from these sales were intended to be used for new purchases in the following year. An estimated 4,000 such cereal banks were constructed in the Sahel and the idea spread to countries outside that region and even outside Africa. Unfortunately, the majority failed.

This failure was because of various false assumptions and management and financial problems:

**False assumptions**

- The cereal banks were based on the assumption that farmers were forced to sell their entire crop immediately after harvest and buy back grain later in the season. Subsequent research questioned this.
- Projects to build cereal banks assumed that they would protect farmers from exploitation by traders. But in fact, it seems that grain trade in the region was very competitive, and profit margins were relatively small.
- The assumption was made that on-farm storage losses were very high.

Research has also challenged this.

**Management and financial problems**

- The cereal banks could not earn enough profit to cover their costs.
- Collective decision-making proved slow and cumbersome.
- There were few incentives for management to perform.
- Banks tended to insist on a credit guarantee to cover the whole amount of the loan, because they had no guarantee that if the loan were not repaid the grain serving as the collateral would still be in the store. This guarantee was usually provided by an NGO. That meant the banks took on little or no

FIGURE 28:XXXX

Insert Figure 28.
5. **Warehouse receipts and the law**  
*Presentation, Exercise and Discussion: 10 minutes*

**WAREHOUSE RECEIPTS AND THE LAW**

Many countries have legislation that governs warehouse receipt systems. This legislation defines the rules and regulations that such systems have to follow.

It protects the interests of depositors, lenders and buyers by making sure that only registered operators are allowed to issue warehouse receipts.

Effective regulations build everyone’s confidence that the receipt system will work. Farmers trust that their grain is safe in the warehouse. Lenders become more willing to lend money. Buyers are happy that the grain will be handed over after they have paid for it.

**Examples of regulations**

- **Warehouse certification.** Certifying or licensing has to cover the warehouses, the warehouse operators and their personnel. This makes sure they meet certain requirements: they must have enough capital, they must have insurance cover for fire and other risks, and they must have a guarantee in case they fail to perform.

- **Enforcement.** A regulatory agency makes regular, unannounced inspections of the warehouse and checks that the grain is properly graded and stored.

- **Reliable receipts.** Systems and procedures ensure that receipts can be issued only by bona fide warehouse operators.

- **Compliance with standards.** The warehouse operator must make sure that the grain conforms to accepted standards. That makes buying and selling easier.

- **Central registry.** A central registry system, preferably electronic, cuts the risk of forgery, prevents duplicate receipts being issued and being “double-pledged” (the same receipt being used as collateral with two different banks).
Model warehouse legislation exists, in particular in the United States. This has guided the development of legislation in Tanzania, Uganda and other countries.

**Warehouse certification**

Having an official warehousing agency to certify warehouses is not essential as long as the warehouse complies with certain requirements and is fully trusted by those using its services. In the initial years of structured trade, having a certification agency may prove rather costly if only a few warehouses are seeking certification. Under these circumstances it may make sense for a country to have an agency with just one or two staff that uses the services of international inspection firms (Box 15).

The warehouse regulatory agency must have a set of rules and regulations to use for certifying and inspecting warehouses.

---

**Box 15. SELECTED INTERNATIONAL FIRMS THAT PROVIDE WAREHOUSE - INSPECTION SERVICES**

All collateral management companies provide warehouse-inspection services. Here are some international companies that offer these services.

**Audit Control and Expertise SA** www.ace-group.net

**Bureau Veritas:**
www.inspectorate.com/agricultural_services/index.asp

**Drum Commodities:** www.drumcommodities.com

**Global Inspection:** www.globalinspectionsgroup.com

**SGS:** www.sgs.com/en/Agriculture-Food.aspx

When a warehouse is certified:
- The warehouse operator applies to join the warehouse receipt system and pays for the inspection costs up front.
- The regulator commissions a firm to inspect the warehouse operator.
The inspection firm does the initial inspection. It checks the
warehouse buildings and equipment, staff skills, lease, records
and insurance. It sends a report to the regulator.

The regulator presents the inspection report to the warehouse
operator. If the operator fails the certification, it can try to fix the
deficiencies.

A follow-up inspection is carried out to check they have been
fixed.

If the warehouse operator meets all the standards, the regulator
issues a license to the warehouse operator. The warehouse is
certified.

6. Warehouse Receipting Systems (WRS)

(Presentation, Exercise and Discussion: (10 minutes)

WAREHOUSE receipts, negotiable instruments backed by the
underlying commodities, are an integral part of the marketing and
financial systems of most industrial countries. The overall efficiency
of markets, particularly in the agribusiness sector, is greatly
enhanced when producers and commercial entities can convert
inventories of agricultural raw materials or intermediary or finished
products into a readily tradable device. Since warehouse receipts
are negotiable instruments, they can be traded, sold, swapped, used
as collateral to support borrowing, or accepted for delivery against a
derivative instrument such as a futures contract.
Unfortunately, the use of warehouse receipts is limited in many developing and transition countries because of institutional and structural shortcomings, among which the most prevalent are the following:

- lack of incentives for the development of a private storage industry owing to government intervention in agricultural markets—usually by setting support prices that take insufficient account of price variations over time or in different regions to allow for profitable storage;
- lack of an appropriate legal, regulatory, and institutional environment to support a system of warehouse receipts; and
- limited, if any, familiarity of the country’s commercial, including its banking, community with warehouse receipts.

**BENEFITS**

It is worth trying to overcome these constraints, since a well-functioning system of warehouse receipts has important economic benefits.

1. **Warehouse receipts provide farmers with an instrument that will allow them to extend the sales period of modestly perishable products well beyond the harvesting season.**
2. **Correctly structured warehouse receipts provide secure collateral for banks by assuring holders of the existence and condition of agricultural inventories “sight unseen.”**
3. **Warehouse receipts contribute to the creation of cash and forward markets and thus enhance competition.**
4. **A warehouse-receipt system provides a way to reduce gradually the role of government agencies in agricultural commercialization.**
5. **Warehouse receipts can be combined with price-hedging instruments.**

**7. Preconditions for Viability**

*(Presentation and Discussions (10 Minutes))*

**PRECONDITIONS FOR VIABILITY OF WAREHOUSE RECEIPT SYSTEM**

In order for a warehouse-receipt system to be viable, the economy within which it operates must meet certain conditions:
The legal system must support pledge instruments, such as warehouse receipts, as secure collateral. The pertinent legislation must meet several conditions:

- warehouse receipts must be functionally equivalent to stored commodities;
- the rights, liabilities, and duties of each party to a warehouse receipt (for example a farmer, a bank, or a warehouseman) must be clearly defined;
- warehouse receipts must be freely transferable by delivery and endorsement;
- the holder of a warehouse receipt must be first in line to receive the stored goods or their fungible equivalent on liquidation or default of the warehouse; and
- the prospective recipient of a warehouse receipt should be able to determine, before acceptance, if there is a competing claim on the collateral underlying the receipt. The lack of an appropriate legal environment is probably the single most important constraint on the creation and acceptance of warehouse receipts in many developing countries and in most countries in transition.

Operational conditions must be conducive to the creation of a warehouse receipt system and include the following:

- reliable warehouse certification, guaranteeing basic physical and financial standards;
- the existence of independent determination and verification of the quantity and the quality of stored commodities, based on a national grading system (with inspection of warehouses and stored commodities performed, in most cases, by the private sector under license from a government body—for agricultural goods, usually the ministry of agriculture); and
- the availability of property and casualty insurance.

The integrity of the system must be assured through performance guarantees.

A key prerequisite for the acceptability of warehouse receipts by the trade and by banks is the existence of a performance guarantee for warehouses, assuring that the quantities of goods stored match
those specified by the warehouse receipt and that their quality is the same as, or better than, that stated on the receipt. Without this guarantee, farmers and traders will be reluctant to store their crops, and banks will be hesitant to accept warehouse receipts as secure collateral for financing agricultural inventories.

The unavailability of performance guarantees—for instance, because of the absence of reliable inspection and certification—may occasionally lead to second-best solutions. For example, in Brazil, a system of warehouse receipts operates that is limited to products stored in bank-owned warehouses.

Performance guarantees are usually posted as insurance bonds, which are sometimes supplemented, as in many US states, with an indemnity fund. These funds are created through contributions of participating warehousemen, collected as part of the fees they charge for their services. The funds are used either alone or as a secondary guarantee alongside insurance bonds. In the latter case, they reduce the cost of the main guarantee instrument, the insurance bond, making the provision of guarantees accessible to smaller warehouses. This broadens the market for warehouse services and increases competition in the storage industry.

8. Uses of Warehouse Receipts in the USA
(Presentation and Discussions (10 Minutes))

USES OF WAREHOUSE RECEIPTS IN THE UNITED STATES

In the United States, warehouse receipts are used for four primary purposes:

- as collateral for standard nine-month loan programs, backed by government guarantees, provided through the US Department of Agriculture (farmers use this post-harvest inventory financing to ease their cash-flow constraints and to facilitate the marketing of their crops);
- as inventory documentation for government-owned grain—for instance, in the US government’s strategic reserves—that is stored in privately owned warehouse space;
- as a means of making collateral out of crops held in commercial storage (by, for instance, grain milling companies); and
as delivery documents that are acceptable for trading on futures exchanges, against letters of credit in payment for exports, etc.

The relative importance of each of these uses depends upon market conditions—principally prices and the sizes of inventories and carryover stocks. The usefulness of warehouse receipts in the economy has been well established—for example, it is widely recognized that the United States would have found it difficult to manage and liquidate the huge grain inventories its farmers accumulated during the mid-1980s in the absence of a system of warehouse receipts as negotiable instruments.

9. Review of Module
(Participants’ questions, Presentation: 15 minutes)

Conclusions

- For countries in transition and developing countries where commodity subsectors have undergone liberalization, the quick establishment of credit flows is crucial to the success of reforms.

- Warehouse receipts provide a method of collateralizing crops and lowering the risk to the lender, thereby lowering financing charges to the borrower.

- In addition, warehouse receipts provide a marketing tool to the emerging private sector, thereby allowing the orderly withdrawal of the state from commodity marketing.

- The experience of several developing countries that have tried to establish warehouse-receipt systems indicates that, in order to work well, warehouse receipts need a recognized basis in law, so that the ownership established by the receipt is not challenged.

- Equally important are provisions for performance guarantees and the establishment of systems for warehouse inspection and crop-quality determination.

Distribute Participants Handouts 20.

Questions and answer session
## MODULE OBJECTIVES

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>4.</td>
</tr>
<tr>
<td>What a Warehouse Receipt System is.</td>
<td>Critical conditions for the success of a Warehouse Receipt System.</td>
</tr>
<tr>
<td>2.</td>
<td>5.</td>
</tr>
<tr>
<td>Sample Warehouse Structures and Stacking Systems.</td>
<td>Roles of Key actors in setting up a Warehouse Receipting System</td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>Interactions involved in a Warehouse Receipt System.</td>
<td></td>
</tr>
</tbody>
</table>
PARTICIPANTS HANDOUT: 2

Types of Warehouse Storage Facilities

A modular prefabricated building
Source: Cruz and Diop (1989)
PARTICIPANTS HANDOUT: 3
Storage Structures: Selection and Design

Area in shadow keeping wall cool and aiding working conditions

Roof overhangs giving shelter from sun and rain
## Requirements of a Standard Warehouse (What to Look For?)

<table>
<thead>
<tr>
<th>Specifications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Boundary fences and gates</td>
<td>Road and hard standing</td>
</tr>
<tr>
<td>Open ground</td>
<td>Weighbridge</td>
</tr>
<tr>
<td>Store buildings</td>
<td>Fire precaution</td>
</tr>
<tr>
<td>a. Roofs</td>
<td></td>
</tr>
<tr>
<td>b. Doors</td>
<td></td>
</tr>
<tr>
<td>c. Windows and ventilators</td>
<td></td>
</tr>
<tr>
<td>d. Gutters and drains</td>
<td></td>
</tr>
<tr>
<td>e. Walls</td>
<td></td>
</tr>
<tr>
<td>f. Floor</td>
<td></td>
</tr>
<tr>
<td>Hygiene</td>
<td>Experienced Staff</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PARTICIPANTS HANDOUT: 5

SAMPLE PALLETTS IN WAREHOUSES

Type 1: Using 5 em x 10 em boards (laid flat) throughout

Type 2: Using 5 em x 10 em boards (on edge) for runners and 2.5 em x 5 em strips (laid flat) for cross pieces
PARTICIPANTS HANDOUT: 6

STACKING IN WAREHOUSES

Goods arranged on stacks

Proper arrangements of goods in a warehouse
PARTICIPANTS HANDOUT: 7

LOCAL PESTS OF CEREALS AND PULSES

Let participants in groups list local pests found within their regions, indicating which crops the pests attack.

<table>
<thead>
<tr>
<th>CEREAL PESTS</th>
<th>PULSES PEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pest (Name)</td>
<td>Pest (Name)</td>
</tr>
<tr>
<td>Cereals it attacks</td>
<td>Pulses it attacks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pest (Name)</th>
<th>Cereals it attacks</th>
<th>Pest (Name)</th>
<th>Pulses it attacks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Cereal and Pulses Pests and Control

- Adult weevil laying eggs
- Weevil
- Egg
- Pupa
- Moth
- Flea
- Beetle
- Store/warehouse and possible entry points of pests & rodents
FUMIGATION PROCEDURES

How to fumigate bag stacks with phosphine

Fumigation of a bag stack may be divided into eight key stages:

1. Initial preparations
2. Sheeting the stack
3. Spraying store surfaces with insecticide
4. Applying the fumigant and sealing the stack
5. Monitoring the fumigation
6. Aeration
7. Disposal of the residue
8. Inspection of fumigation performance.
Sample Warehouse Inspection Report Form

Time ______________________

Date ______________________

Weather conditions __________________________________________________________

Location (Village or town) ______________________________________________________

Owner of store ______________________________________________________________

Warehouse or Depot Manager: _________________________________________________

Storekeeper: __________________________________________________________________

PREMISE INSPECTION

1. Area surrounding store:
   i. Conditions of:
      Access: Good______  Fair________  Poor__________
      Drainage: Good______  Fair__________  Poor________
      Security: Good______  Fair__________  Poor________
      Security: Good______  Fair__________  Poor________

   ii. Vegetation adjacent to store: None ___ Cut____Uncut _____

2. The Building
   i. Type of construction (Wood, brick, metal, e.t.c.)
      Walls

   ________________________________
   ________________________________
   ________________________________
   ________________________________

   Roof

   ________________________________
   ________________________________

   Floor

   ________________________________

   ii. Dimensions: Length __________  Width __________

   Height__________
iii. Capacity (Specify type of commodity)

iv. Number of ventilators _______ Screened _________ Unscreened _________

v. Number of doors: ____________________________________________

vi. Is electricity available? _________________________________________

3. Conditions of building externally:

i. Cracks in walls or roof; _____________________________________________

ii. Signs of rodent activity ____________________________________________

iii. Broken or damaged gutters or drains: ________________________________

4. Conditions of building internally:

i. Is the store waterproof? ____________________________________________

ii. Describe any signs of entry of rainwater: _____________________________

iii. Are there any signs of rodent or bird entry/damage? ___________________

iv. Is the store clean, particularly the floor? _____________________________

*Adopted from Handbook for Storekeepers for Food Aid.*
Commodity Inspection

1. Type and quantity stored
   __________________________________________________________
   __________________________________________________________

2. Condition of commodity
   i). Moisture content/mould present? ____________________________
   ii). Is re-drying of any commodity necessary? ____________________
   iii). Inspect infestation: Are insects present? ____________________

   Type: _______________________________________________________

   Is commodity: Lightly infested? _________________________________
                 Moderately infested? _________________________________
                 Heavily infested? ____________________________________

3. Pest control
   i. Have control measures been carried out recently? ______________
      If so, what _________________________________________________

   ii. Recommended pest control to be carried out now:
       Fumigation ________________________________________________
       Spraying _________________________________________________
       Rodenticides ______________________________________________
       Rodent trapping ___________________________________________
       None necessary ____________________________________________

4. Future movements of stored commodity
   Any remarks not included above:
   (Signed)___________________________________________________

   Inspector: __________________________________________________

*Adopted from Handbook for Storekeepers for Food Aid.*
Recommended Warehouse Equipment

Warehouses may not need all the equipments but this will depend on the location of the warehouse and access to commercial pest control companies and closeness to towns where they can share some of the equipments;

<table>
<thead>
<tr>
<th>Warehouse Equipments</th>
<th>Safety/Security Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Storage and Handling</strong></td>
<td><strong>Generator</strong> (For lighting &amp; bag stitcher)</td>
</tr>
<tr>
<td>Platform scales, Avery 500 kg non digital</td>
<td>Heaters</td>
</tr>
<tr>
<td>Platform scales, 300 kg</td>
<td>Water tank with hand pump (500-1,000 litres)</td>
</tr>
<tr>
<td>Salter scales (Hanging 100 kg)</td>
<td>Fuel tank</td>
</tr>
<tr>
<td>Folk lifts</td>
<td>Security alarm (Battery powered)</td>
</tr>
<tr>
<td>Hand jacks</td>
<td>Padlocks (Heavy duty)</td>
</tr>
<tr>
<td>Wheel barrow</td>
<td>Spotlights</td>
</tr>
<tr>
<td>Pallets</td>
<td>Razor wire</td>
</tr>
<tr>
<td>Plastic sheeting in rolls</td>
<td>First Aid kits</td>
</tr>
<tr>
<td>Storage tents</td>
<td>Smoke detector (ABC type)</td>
</tr>
<tr>
<td>Containers</td>
<td>Fire extinguishers</td>
</tr>
<tr>
<td>Tarpaulins</td>
<td>Empty drums</td>
</tr>
<tr>
<td>Ladders</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Reconditioning/Salvage and Reclamation</strong></th>
<th><strong>Tools</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Empty bags, 50 kg polypropylene</td>
<td>Measuring tapes (50-100M)</td>
</tr>
<tr>
<td>Empty bags, 25 kg plastic</td>
<td>Tool box</td>
</tr>
<tr>
<td>Empty bags, 100 jute</td>
<td>Electric drill</td>
</tr>
<tr>
<td>Bag stitcher/sewing machine</td>
<td>Electric saw</td>
</tr>
<tr>
<td>Buckets</td>
<td>Machetes</td>
</tr>
<tr>
<td>Brooms</td>
<td>Bolt cutter*</td>
</tr>
<tr>
<td>Shovels</td>
<td></td>
</tr>
<tr>
<td>Needles</td>
<td></td>
</tr>
<tr>
<td>Thread</td>
<td></td>
</tr>
<tr>
<td>Funnels</td>
<td></td>
</tr>
<tr>
<td>Jerrycans</td>
<td></td>
</tr>
<tr>
<td>Sieves/screens</td>
<td></td>
</tr>
<tr>
<td>Scoops</td>
<td></td>
</tr>
<tr>
<td>Inspection/Quality Control</td>
<td>Pest Control</td>
</tr>
<tr>
<td>----------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>• Sampling spear</td>
<td>• Fumigation sheets</td>
</tr>
<tr>
<td>• Torches</td>
<td>• Sand snakes</td>
</tr>
<tr>
<td>• Moisture meter</td>
<td>• Phospine meter</td>
</tr>
<tr>
<td>• Sample bags</td>
<td>• Gas detector tubes</td>
</tr>
<tr>
<td>• Vacuum cleaner</td>
<td>• Gas sampling line</td>
</tr>
<tr>
<td>• Waste disposal/garbage drums</td>
<td>• Gas / face mask</td>
</tr>
<tr>
<td>• Cleaning equipment</td>
<td>• Gas/Face mask filters</td>
</tr>
<tr>
<td>• Paint and paint brushes</td>
<td>• Alluminium phosphide tablets</td>
</tr>
<tr>
<td>• Dust mask</td>
<td>• Pirimiphos –methyl*</td>
</tr>
<tr>
<td>• Sealing tape</td>
<td>• Knapsack sprayers*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Protective Clothing</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Overalls</td>
</tr>
<tr>
<td>• Rubber gloves</td>
</tr>
<tr>
<td>• Rubber boots</td>
</tr>
</tbody>
</table>

*N/B: Items with * at the end should be used by trained personnel*
<table>
<thead>
<tr>
<th>Warehouse Receipts System has the Benefits of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>➔ mobilizing credit to agriculture by creating secure collateral for the farmer, processor, and trader</td>
</tr>
<tr>
<td>➔ smoothing market prices by facilitating sales throughout the year rather than just after harvests</td>
</tr>
<tr>
<td>➔ reducing risk in the agricultural markets, improving food security and credit access in rural areas</td>
</tr>
<tr>
<td>➔ increasing market power of small-holders by enabling them to chose at what point in the price cycle to sell their crops</td>
</tr>
<tr>
<td>➔ helping to upgrade the standards and transparency of the storage industry since it requires better regulation and inspection</td>
</tr>
<tr>
<td>➔ helping to create commodity markets which enhance competition, market information and international trade</td>
</tr>
<tr>
<td>➔ providing a way to gradually reduce the role of government in agricultural commercialization</td>
</tr>
<tr>
<td>➔ contributing to lower post harvest losses due to better storage conditions (i.e. induces farmers to store in more appropriate warehouses)</td>
</tr>
<tr>
<td>➔ lowering transaction costs by guaranteeing quantity and quality</td>
</tr>
<tr>
<td>➔ increasing quality awareness (assuring the quality deposited is the same as the quality withdrawn).</td>
</tr>
</tbody>
</table>
Figure 23. A warehouse receipt issued by the Eastern Africa Grain Council

Figure 25. Warehouse receipt systems make it possible to get loans for stored grain
Warehouse Receipting System - East Africa Grain Council Model

Illustrated WRS Process

- Grain
- Farmer
- No financing
- Loan
- Bank
- EAGC Certified Warehouse
- Issues
- Goods Received Note
- EAGC Warehouse Receipt
- Financing
- EAGC
- Confirm warehouse receipt details

The depositor can make the original warehouse receipt(s) to the bank if he needs a loan.

The depositor opens an account with the bank and deposits original warehouse receipts to the bank.
<table>
<thead>
<tr>
<th>WRS BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Warehouse receipts provide farmers with an instrument that will allow them to extend the sales period of modestly perishable products well beyond the harvesting season.</em></td>
</tr>
</tbody>
</table>

When delivering the product to an accredited warehouse, the farmer obtains a warehouse receipt that can be used as collateral for short-term borrowing to obtain working capital. That way, the farmer does not need to sell the product immediately to ease cash constraints. Of course, this option will be attractive only if the farmer expects that seasonal price increases will make it worthwhile to store the product and sell it later.

Unfortunately, governmental price supports are often structured in such a way that these expectations are not met. Rather, owing to governments’ efforts to decrease price volatility and “stabilize markets,” support prices are frequently fixed for most of the period between harvests and, on top of that, are set uniformly for the entire country. Moreover, real interest rates are often very high in developing and transition countries, making borrowing against inventories infeasible. This occurs because it is unlikely that borrowing costs can be recouped through seasonal price increases, even in the absence of other price-dampening measures.

The availability of secure warehouse receipts may, however, allow owners of inventories to borrow abroad in currencies for which real interest rates are lower, particularly if loans are made against inventories of an export commodity, thereby hedging against the foreign exchange risk of foreign borrowing. This practice is followed in Kenya and Uganda, where coffee stocks are often financed in pounds sterling.

Also, since high real interest rates are often linked to perceived risks, particularly when it concerns agriculture, secure warehouse receipts may reduce risk and lead to lower lending rates.
Correctly structured warehouse receipts provide secure collateral for banks by assuring holders of the existence and condition of agricultural inventories “sight unseen.”

Warehouse receipts can be used by farmers to finance their production, and by processors to finance their inventories. If there is a default on any obligation guaranteed with the warehouse receipt—for instance, a bank loan—the holder has first call on the underlying goods or their monetary equivalent.

Collateralizing agricultural inventories will lead to an increase in the availability of credit, reduce its cost, and mobilize external financial resources for the sector.

Warehouse receipts contribute to the creation of cash and forward markets and thus enhance competition.

They can form the basis for trading commodities, since they provide all the essential information needed to complete a transaction between a seller and a buyer.

Their availability will thus both increase the volume of trade and reduce transaction costs. Since buyers need not see the goods, transactions need not take place at either the storage or the inspection location. Indeed, with a functioning warehouse-receipt system, commodities are rarely, if ever, sold at the warehouse proper. A transaction can take place informally or on an organized market or exchange. In either case, the warehouse receipt forms the basis for the creation of a spot, or cash, market.

If transactions involve the delivery of goods on a future date, warehouse receipts can form the basis for the creation of a forward market and for the delivery system in a commodity futures exchange. A broader benefit of warehouse receipts is that they increase the confidence of participants, particularly those in the private sector, in market transactions.

A warehouse-receipt system provides a way to reduce gradually the role of government agencies in agricultural

Government intervention in agricultural markets usually has two main objectives: to support prices, by buying directly from producers, and to guarantee a measure of food security. In order to support prices, governments can accept warehouse receipts when
prices drop below a support floor, rather than taking delivery of physical inventories—a system similar to the loan rate system used in the United States until recently.

Since warehouse receipts guarantee the existence of stocks, governments can achieve their food security objectives by merely holding these receipts. The private sector will be responsible for purchasing, storing, and disposing of the physical stocks. When private sector initiatives designed to protect market participants against price fluctuations develop—for instance, through hedging in a futures market—the government will no longer need to play a role in this area.

<table>
<thead>
<tr>
<th>Warehouse receipts can be combined with price-hedging instruments.</th>
</tr>
</thead>
<tbody>
<tr>
<td>This combination provides lenders with secure collateral, in the form of warehouse receipts, and puts a minimum value on it, through the hedging operation.</td>
</tr>
<tr>
<td>For example, the PTA Bank in Kenya finances coffee exporters by taking their warehouse receipts as collateral and also offers them a put option, purchased at the London Commodity Exchange, that guarantees sellers a minimum price for the coffee they have in storage. By assuring a floor price for the stored coffee, the PTA Bank can provide finance for a higher percentage of the value of coffee than it could justify in the absence of the floor price.</td>
</tr>
<tr>
<td>Banks will often advance 80–90 percent of the value of the transaction if it is hedged, but only 50–60 percent if it is not.</td>
</tr>
</tbody>
</table>
ACE WILL TRAIN AND SENSITISE THE FARMER ABOUT THE WAREHOUSE RECEIPT SYSTEM. A FARMER CAN ACCESS PROFESSIONAL STORAGE AND FINANCE AND GET A FAIR PRICE FOR COMMODITIES THROUGH THE WAREHOUSE RECEIPT SYSTEM.
ACE CAN FACILITATE SECURE AND RELIABLE TRANSPORT FOR FARMERS TO AN ACE CERTIFIED STORAGE SITE.

THE FARMER WILL RECEIVE A WAREHOUSE RECEIPT UPON DEPOSIT. THE STORAGE OPERATOR WILL GUARANTEE THAT QUANTITY AND THE QUALITY WILL BE MAINTAINED.

THE ACE CERTIFIED STORAGE SITES ARE SECURE, FULLY INSURED AND PROFESSIONALLY OPERATED FACILITIES. ACE WILL SEND COLLATERAL MANAGERS TO INSPECT AND AUDIT THE STORAGE SITES TO ENSURE THE BEST STANDARDS.
The banks trust the warehouse receipt system and they are therefore willing to give the farmer a loan knowing that the commodity is safe, secure and guaranteed by the storage operator.

The farmer can now wait for a better price knowing that the commodity is safe in store. ACE will send price information on SMS and the farmer can decide to sell when the price is right.
The buyer will pay to ACE Settlement account; ACE will pay the bank, the storage operator, keep 1x commission and give the balance to the farmer.
### LEGAL REGULATIONS FOR WAREHOUSES

<table>
<thead>
<tr>
<th>Examples of regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warehouse certification. Certifying or licensing has to cover the warehouses, the warehouse operators and their personnel. This makes sure they meet certain requirements: they must have enough capital, they must have insurance cover for fire and other risks, and they must have a guarantee in case they fail to perform.</td>
</tr>
<tr>
<td>Enforcement. A regulatory agency makes regular, unannounced inspections of the warehouse and checks that the grain is properly graded and stored.</td>
</tr>
<tr>
<td>Reliable receipts. Systems and procedures ensure that receipts can be issued only by bona fide warehouse operators.</td>
</tr>
<tr>
<td>Compliance with standards. The warehouse operator must make sure that the grain conforms to accepted standards. That makes buying and selling easier.</td>
</tr>
<tr>
<td>Central registry. A central registry system, preferably electronic, cuts the risk of forgery, prevents duplicate receipts being issued and being “double-pledged” (the same receipt being used as collateral with two different banks).</td>
</tr>
</tbody>
</table>

Model warehouse legislation exists, in particular in the United States. This has guided the development of legislation in Tanzania, Uganda and other countries.
**WAREHOUSE CERTIFICATION**

When a warehouse is certified:

- The warehouse operator applies to join the warehouse receipt system and pays for the inspection costs up front.
- The regulator commissions a firm to inspect the warehouse operator.
- The inspection firm does the initial inspection. It checks the warehouse buildings and equipment, staff skills, lease, records and insurance. It sends a report to the regulator.
- The regulator presents the inspection report to the warehouse operator. If the operator fails the certification, it can try to fix the deficiencies.
- A follow-up inspection is carried out to check they have been fixed.
- If the warehouse operator meets all the standards, the regulator issues a license to the warehouse operator. The warehouse is certified.
## SUMMARY

<table>
<thead>
<tr>
<th>☝️ What are Warehouses?</th>
<th>☝️ Warehouses are intended for the storage and physical protection of goods. In the context of grain storage, 'goods' primarily refers to bagged grain. It may also include materials and equipment required for the packaging and handling of bagged grain, and storage pest control; although, in an ideal situation, such items should be stored separately.</th>
</tr>
</thead>
<tbody>
<tr>
<td>☝️ Reforms in Agriculture</td>
<td>☝️ For countries in transition and developing countries where commodity sub-sectors have undergone liberalization, the quick establishment of credit flows is crucial to the success of reforms in Agriculture.</td>
</tr>
<tr>
<td>☝️ Benefits</td>
<td>☝️ Warehouse receipts provide a method of collateralizing crops and lowering the risk to the lender, thereby lowering financing charges to the borrower.</td>
</tr>
<tr>
<td>☝️ Marketing Tool</td>
<td>☝️ In addition, warehouse receipts provide a marketing tool to the emerging private sector, thereby allowing the orderly withdrawal of the state from commodity marketing.</td>
</tr>
</tbody>
</table>