GOVERNMENT OF INDIA
MINISTRY OF CONSUMER AFFAIRS, FOOD & PUBLIC DISTRIBUTION
DEPARTMENT OF FOOD AND PUBLIC DISTRIBUTION

RAJYA SABHA
UNSTARRED QUESTION NO. 1006
TO BE ANSWERED ON 28TH JULY, 2026

SMART WAREHOUSING ECOSYSTEMS

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Will the Minister of ***Consumer Affairs, Food and Public Distribution*** be pleased to state:

(a) the current deployment status of AI and IoT-enabled components across Central Warehousing Corporation (CWC) facilities mapped on the Smart Warehousing Ecosystem dashboard;

(b) the total volume and value of credit loans disbursed to farmers against electronic Negotiable Warehouse Receipts (e-NWRs) through the e-Kisan Upaj Nidhi portal;

(c) whether the Credit Guarantee Scheme for pledge financing has successfully increased bank onboarding; and

(d) if so, the details thereof?

ANSWER
MINISTER OF STATE FOR MINISTRY OF CONSUMER AFFAIRS,
FOOD & PUBLIC DISTRIBUTION
(SHRIMATI NIMUBEN JAYANTIBHAI BAMBHANIYA)

(a): The following Smart Warehousing Systems have been deployed in CWC Warehouses, as detailed hereunder:

A. Smart Warehousing (Foodgrain Warehouses) - Component-wise Detail

This system automates operations at foodgrain and general commodity warehouses, integrating with the ERP-WMS so that every action generates automated records and alerts.

i. **Gate & Weighbridge Automation:** Uses FASTag and ANPR (Automatic Number Plate Recognition) to validate incoming/outgoing vehicles and drivers, eliminating manual gate registers and enabling touchless, error-free weighment recording.

ii. **Smart Locking Systems:** Digital locks control godown access, creating an auditable trail of every entry/exit and preventing unauthorized access to stored stock.

iii. **AI-based Bag Counting:** Computer-vision cameras count foodgrain bags in real time during loading and unloading, enabling reconciliation of daily transactions (receipts and issues of foodgrain bags in the godowns)

iv. **Face Recognition System (FRS) with Object Detection:** Authenticates the identity of officials conducting quality inspections and detects objects/items during the process, ensuring only authorized personnel perform sensitive checks.

v. **IoT Gas Sensors:** Continuously monitor CO2 and Phosphine gas concentrations inside godowns to support scientific storage practices and safe, timely fumigation without manual sampling.

vi. **AI Surveillance (Fire/Smoke/Rodent Detection):** Cameras and sensors trigger real-time alerts for fire, smoke, or rodent activity, enabling early intervention before losses occur.

B. Smart EXIM Warehousing (CFS/ICD) - Component-wise Detail

This system is tailored for CWC's Container Freight Stations (CFS) and Inland Container Depots (ICD), where the operational unit is the container/cargo as applicable in EXIM logistics/ warehousing:

i. **AI-enabled Smart Gates:** Use OCR (Optical Character Recognition) and computer vision to automatically verify drivers, vehicles, and containers as they enter or exit the facility, replacing manual gate checks.

ii. **Cross-validation with Government Platforms:** Vehicle and container data is checked in real time against national systems such as ULIP (Unified Logistics Interface Platform), NLP, Port Systems, and Customs ICEGATE, Logistics Data Bank, etc. ensuring verification & validation of cargo

iii. **Automated Boom Barriers:** Barriers open automatically once verification against these platforms is complete, with entry/exit records auto-generated into the ERP, removing paper-based logging.

iv. **Digital Twin Yard Management (GNSS-guided):** Creates a live digital replica of the container yard, guiding reach-stacker operators and drivers via satellite navigation to optimal storage slots, maximizing space utilization.

v. **Smart Inventory Management (Barcode-driven):** Tracks every cargo unit precisely across the CFS/ICD network using barcodes, giving real-time track-and-trace visibility of container locations and status.

The overall objective is to ensure near-zero storage losses, improve turnaround time, strengthen the security system, improve transparency and visibility, minimize manual intervention in processes, ease of doing business, etc.

Current Deployment Status:

AI and IoT-enabled components under CWC's Smart Warehousing and EXIM Systems have been deployed across 215 foodgrain warehouse locations and 4 EXIM locations PAN-India, with component-wise mapping status on the dashboard as follows:

i. **Smart EXIM Warehousing Components:** Deployed and available on the dashboard, covering all AI-enabled Smart Gates, boom barriers, Digital Twin yard management, etc at four CFS/ICD locations.

ii. **Gate Automation & Smart Locking Systems:** Fully deployed on the dashboard across these 215 foodgrain warehouse locations, with FASTag/ANPR-based gate data and Smart Lock logs already visible for monitoring.

iii. **AI Cameras & IoT Sensors (Bag Counting, FRS, Fire/Smoke/Rodent Surveillance):** Deployed at the 215 foodgrain warehouse locations; however, stabilization of their feeds and mapping onto the dashboards is currently in progress.

The systems are currently under fine-tuning and stabilization.

(b): As on July 17, 2026, a total of 90 applications with a value of Rs. 9.14 Crores were submitted on e-KUN platform under farmers category. The banks need to update the disbursement details portal post issuance of loans. As per the details updated by banks a total of 14 applications with a value of Rs. 2.22 crores updated in the portal.

(c): Yes, The Credit Guarantee scheme for e-NWR based pledge financing (CGSNPF) has increased bank onboarding. As on July 17, 2026, a total of 50 banks onboarded. The 50 banks include all 12 Public Sector Banks, 11 Private Banks, 12 Regional Rural Banks (RRBs), 2 Small Finance Banks, 13 Cooperative banks are onboarded in this scheme.

(d): The Credit Guarantee scheme for e-NWR based pledge financing (CGSNPF) was launched on Feb 12, 2025. Number of lending institutions registered under CGS-NPF as on July 17, 2026, are 50. Details as mentioned below:

Public Sector Bank

Sr.No.	MLI Name
1	Bank Of Baroda
2	Bank Of India
3	Bank Of Maharashtra
4	Canara Bank
5	Central Bank Of India
6	Indian Bank
7	Indian Overseas Bank
8	Punjab & Sind Bank
9	Punjab National Bank
10	State Bank Of India
11	Uco Bank
12	Union Bank Of India

Private Sector Bank

Sr.No.	MLI Name
1	Axis Bank Ltd.
2	HDFC Bank Ltd
3	ICICI Bank
4	IDBI Bank Ltd
5	Indusind Bank Limited
6	Jammu & Kashmir Bank
7	Karnataka Bank Ltd.
8	Tamilnad Mercantile Bank Ltd.
9	The Karur Vysya Bank Limited
10	The South Indian Bank Ltd.
11	Yes Bank

Regional Rural Bank

Sr.No.	MLI Name
1	Andhra Pradesh Grameena Bank
2	Assam Gramin Bank
3	Gujarat Gramin Bank
4	Karnataka Grameena Bank
5	Kerala Gramin Bank
6	Madhya Pradesh Gramin Bank
7	Punjab Gramin Bank
8	Rajasthan Gramin Bank
9	Tamilnadu Grama Bank
10	Telangana Grameena Bank
11	Uttar Pradesh Gramin Bank
12	Uttarakhand Gramin Bank

Small Finance Bank

Sr.No.	MLI Name
1	Esaf Small Finance Bank
2	Slice Small Finance Bank Limited

Co-operative Bank

Sr.No.	Mli Name
1	Cuddalore District Central Cooperative Bank Ltd.
2	Dombivli Nagari Sahakari Bank Ltd.(Dns Bank)
3	Erode District Central Cooperative Bank Ltd
4	Janata Sahakari Bank Ltd.,Pune
5	Motiram Agrawal Jalna Merchant's Cooperative Bank Ltd Jalna
6	Sivagangai District Central Co-Operative Bank Ltd
7	Suco Souharda Sahakari Bank Ltd.
8	Telangana State Cooperative Apex Bank Limited
9	The Nilgiris District Central Cooperative Bank Limited
10	The Tamil Nadu State Apex Cooperative Bank Ltd
11	The Tiruchirappalli District Central Co-Operative Bank
12	The Tiruvannamalai District Central Cooperative Bank
13	The Villupuram District Central Cooperative Bank Ltd.

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