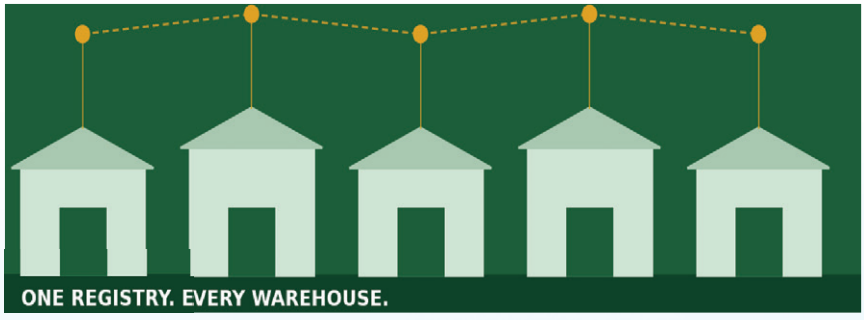
India's Warehouses Need a Digital Identity

A National Warehouse Registry could unlock trust, credit and efficiency across agricultural storage

India can store over 150 million tonnes of farm produce, yet no single digital record tells a bank, insurer or regulator which warehouse holds what, or what is already pledged against it. As agriculture moves towards digital, credit-linked markets, that missing record is becoming





About The AUTHOR

Mr. Saurabh Khanna is Managing Director & Chief Executive Officer, National e-Repository Ltd.

Mr. Khanna has earlier worked with L&T Finance as a Business Head for Agriculture & Allied Business; with L&T Finance, and with Samunnati Financial Intermediation & Services Pvt. Ltd as a Business Head.

His earlier experience includes Executive Director & Business Head-Retail, Standard Chartered Investments & Loan Ltd. and Director –Financial Inclusion (PSL) with Standard Chartered Bank: Head –FIG-West, ICICI Bank; Cluster Head & VP-Business Banking, HSBC



one of the sector's most important gaps.

The gap is costly. WDRA reports 7,660 active registered warehouses as of June 2026, but much of the sector's data still sits in separate systems and paper files. Lenders struggle to verify collateral, insurers lack a clear view of risk, and the danger of double financing remains. Farmers, who most need reliable storage and credit, bear the brunt of this opacity.

150+ Mt
*Agri-Storage Capacity in India**

7,660
Active WDRA-Registered Warehouses (Jun 2026)

₹2,393 cr
E-NWR Pledge finance, Apr–Jun 2026

Foundations Are in Place

The foundations are already being laid. Electronic negotiable warehouse receipts (e-NWRs) began in 2017, and WDRA has steadily widened registration: 610 warehouses were registered in 2021-22 and 1,681 in 2024-25, the latter with 116.02 lakh tonnes of capacity. Confidence in warehouse-backed credit is rising too. Pledge finance against e-NWRs grew from Rs 732 crore in 2020-21 to Rs 1,492 crore in 2021-22, and Rs 2,393 crore was reported for April–June 2026.

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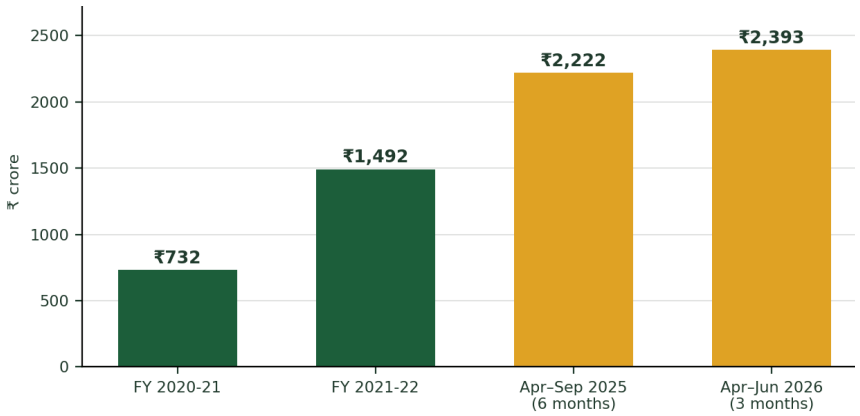
The Missing Link

Receipts, registration and credit have each been digitised in parts. What is missing is the warehouse itself as a single, verifiable entity. A lender checking collateral may have to confirm licence status in one place, insurance in another and inspection history in a third.

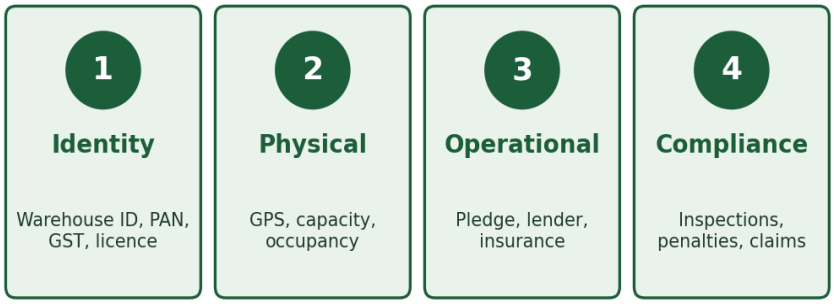


Pledge finance against e-NWRs (Rs crore). Periods differ: the last two bars cover six and three months. Source: WDRA, Business Standard.

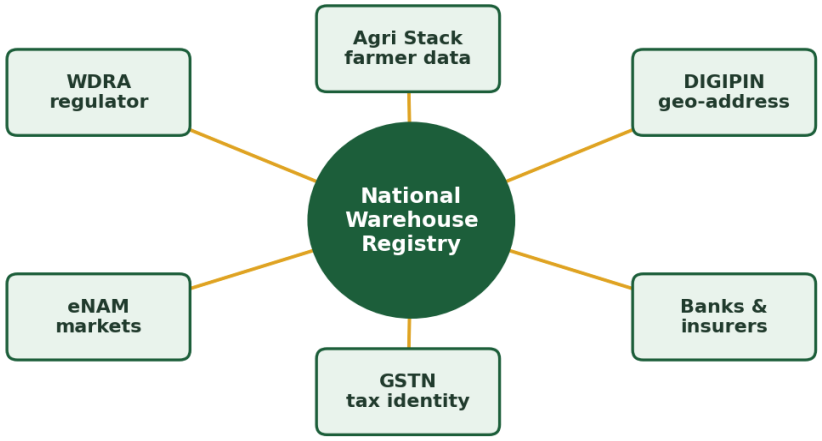
A registry does not replace these systems. It connects them, so that every participant works from the same facts.

The Digital Warehouse Passport

A National Warehouse Registry would give every warehouse a unique ID and a Digital Warehouse Passport with four layers: identity (licence, PAN, GST), physical details (location, capacity, occupancy), operations (pledges, lenders, insurance)



Four layers of a Digital Warehouse Passport



The registry as a connecting layer across existing systems.



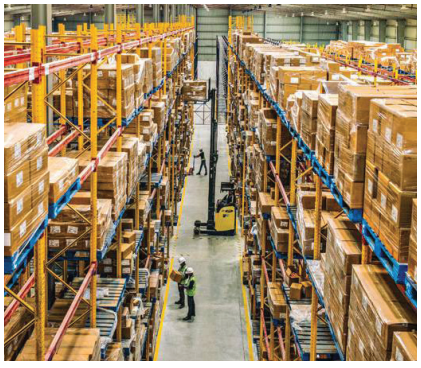
and compliance (inspections, penalties, claims). The passport would be a living record, updated as data flows in rather than a document filed once and forgotten.

Four layers of a Digital Warehouse Passport

Pairing the registry with DIGIPIN, India's digital addressing system, would add precise geospatial identification and lot-level traceability. Open APIs to WDRA, eNAM, Agri Stack and GSTN would let verified data move securely between agencies, banks and insurers, cutting duplication and delay.

The registry as a connecting layer across existing systems.

The idea fits India's wider approach to digital public infrastructure. Identity, payments and, increasingly, agricultural data have been built as shared, interoperable layers that many players can use. Agri Stack, for instance, is building registries of farmers, crops and plots. A warehouse registry would add the missing storage layer, connecting the farmer's field to the stored, financed produce.



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How It Would Work

Consider an illustrative case. A farmer producer organisation wants a loan against stored chiWWWckpeas. Today, the bank may verify the warehouse's licence, insurance and existing pledges through separate channels. With a registry, a single lookup using the Warehouse ID could confirm all three, making credit decisions faster and more reliable. Multiplied across thousands of loans, such savings in time and uncertainty add up.

Who Gains

The payoffs reach every part of the chain. Banks gain faster collateral checks and lower fraud risk. Insurers can price risk better. Regulators get a live view of compliance. Government can map storage gaps and plan for food security and disasters. Warehouse operators with clean records gain visibility and easier access to finance. Farmers can discover certified warehouses, compare costs and reach credit more easily.

Ultimately, what the registry offers is trust at lower cost. When a lender can see verified facts about a warehouse, it needs fewer manual checks and fewer safety margins. That can translate into quicker decisions, wider coverage and, over time, better terms for the farmers and traders who rely on stored produce for working capital.

Safeguards by Design

A registry is only as good as its data, so design matters. Onboarding must verify records at the start, and small or unregistered warehouses need a simple path in. Commercially sensitive information should be shared through role-based access and clear consent rules. And the registry should draw data from existing systems through APIs, rather than ask operators to enter the same details again and again. Governance should include regulators, lenders, warehouse operators and farmer groups, with regular audits and clear grievance redressal

What Policy Must Do

Policy must lead. India should notify the registry as storage-sector digital public infrastructure, mandate a Warehouse ID for commercial warehouses, require lenders to reference it, and appoint a neutral operator under common governance. A phased rollout, beginning with WDRA-registered warehouses and then widening, would let the system prove itself before it scales. Repositories such as NeRL, which already handle electronic warehouse receipts and sit between warehouses, depositors and lenders, are natural candidates to operate it.

If India builds this trust layer well, storage could become as transparent as payments, and the farmer's harvest as easy to finance as it is to grow.

(*Storage capacity figure as cited in the NWRI proposal; registration data from WDRA annual reports; pledge finance from WDRA bulletins and Business Standard.)