

CITIZEN SERVICES AND USE OF IT

Everyday tech can help food reach 260 m more

A PDS Tracking Pilot In Krishnagiri Has The Potential To Improve Efficiency, Plug Leakages & Benefit Millions

Jayadevan PK & Srividya Iyer
KRISHNAGIRI

LIKE coast guards on pirate patrol, ration officials at Krishnagiri district of Tamil Nadu spend hours on their computer screens monitoring the routes taken by 31 trucks transporting essentials such as rice and sugar from neighbouring states to ration shops in the district.

Till recently, Krishnagiri — which borders Andhra Pradesh and Karnataka — had been facing a shortage of essential commodities meant for public distribution due to rampant cross-border smuggling. A back-of-the-envelope calculation by one official pegs the profits made by smugglers at a whopping Rs 70,000 per truck. District administration officials told ET that in 2010, over 30 vehicles carrying goods worth Rs 20 lakh were seized.

"We used to get news about commodities getting smuggled. Now that's reduced. PDS rice costing Re 1 a kg was being smuggled out and sold outside for at least Rs 13," said N Raja, special officer, Krishnagiri Co-operative Marketing Society.

Now, by fitting the trucks with a global positioning system (GPS) — created by El Labs, Bangalore — that talks back to a central server, the officials have managed to curb the menace to a large extent. While a GPS device dishes out correct information on location and time taken by each vehicle, a website pools all data and presents a real-time view to the officials.

Right from the time essential commodities for four lakh ration card holders of this district are dispatched from the stockyard, to the point they are delivered to the cardholder, the entire process is being watched by co-operative department officials using simple yet effective technology. The trucks are fitted with GPS transponders and tracked online by a co-operative department official. If he observes a diversion or a long stopover, he can alert the field officer to check the status of the vehicle.

To check pilferage from fair-price shops, the administrators have installed electronic weighing machines. Finally, at the time of sale, a general packet radio service (GPRS) enabled handheld billing machine is used. Each time a sale is concluded at a fair-price shop, the machine prints a bill. The bill is generated in Tamil for the convenience of the users and the salesmen. And as it gets generated, the billing details are updated in the central database. Moreover, a report is generated periodically to monitor pilferage.

These machines have been installed by Coromandel Infotech at 447 fair-price shops across Krishnagiri. Under the PDS system, the district has 478 full-time shops, 451 part-time shops and 29 women-run shops. "Rest of the shops will be covered soon," said Bharati, senior executive, Coromandel Infotech. This pilot project will be followed by rollouts in 12 more districts including Madurai, Coimbatore, Tiruchirapalli and Salem.

Says V Arun Roy, district collector, Krishnagiri: "There has been a noticeable difference in the public distribution system. For example, when we go for inspection, we have advance information on the opening and closing stock. That way, we can check pilferage effectively."

According to the SP Pal report to the Planning Commission — the last comprehensive government report on PDS — over 36% of the budgetary subsidy on food is siphoned off the supply chain and another 21% reaches the above poverty line households. Of the estimated 45.41 million below poverty line households, targeted PDS has reached only 57%.

The problems of targeting errors and ghost cards have dented the performance and increased the delivery cost of the targeted public distribution system, the report said. These, along with certain weaknesses in the delivery mechanism, have led to large-scale leakages (36.38%) and diversion (21.45%) of subsidised grains to unintended beneficiaries. The Krishnagiri interventions, simple as they may sound, can impact over 260 million (2006 estimates) below poverty line citizens, once they are successfully implemented across India.

India's public distribution system for foodgrain — operated jointly by the Centre and the state governments — has a network of 4.99-lakh fair-price shops, making it the largest such network in the world. While the Centre is responsible for procurement, storage, transportation and bulk allocation of foodgrain, the state government is responsible for distribution.

With scams of huge proportions afflicting the system, the government is under pressure to im-



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THE WORKFLOW

- 1 Goods leave godown on trucks fitted with GPS
- 2 Via real-time tracking software, a person tracks the trucks constantly using a webpage which has GPS data. Green pointers follow moving trucks and red ones show the positions of those that have stopped



People buying ration from a fair-price shop in Krishnagiri, which uses a GPRS device

prove it. Last week, the Prime Minister's expert committee on the National Food Security Bill favoured distribution of subsidised foodgrain through a smart card-based PDS, mainly to check leakages. C Rangarajan, who heads the Prime Minister's economic advisory panel, has in his report, praised the efforts of states like Tamil Nadu, Chhattisgarh, Uttar Pradesh and Madhya Pradesh for using GPS tracking, bar-coded grain bags and text message alerts to reduce PDS losses.

An earlier report — the Justice Wadhwa Committee report on PDS — had said the problems with our food rationing system include multiple ration cards under a single name, faulty record keeping, pilferage and lack of a central monitoring system.

The committee called for a fool-proof monitoring system starting from the central store to fair price shops covering transactions at all levels and transport. The panel also said the system must be web-enabled right up to the national level as this will make PDS operations transparent.

Says R Balasubramaniam, vigilance director, Karnataka Lokayukta, technological intervention is necessary to track leakages and make the distribution system better. He, however, says the stake-

holders are going slow on implementation because it involves upsetting the existing corrupt set-up. Balasubramaniam was appointed by the Karnataka Lokayukta to investigate corruption in the public distribution system in the state and suggest remedial measures.

"Right from classification of the target group to the point of sale, there is corruption. These problems can be solved using a holistic technological approach," said Balasubramaniam.

On the flip side, technology intervention can be subverted at times. "GPS and point-of-sale devices are good but the corrupt are smarter. In Chhattisgarh, when the GPS system was installed to track lorries, some truckers ripped it off the lorry and fitted it on to a motorcycle," he added. Lack of rigorous quality checks and inability to ensure whether the right people are getting benefited are other bugbears. "There is no way this system can be efficient if the well-to-do siphon off the ration meant for the poor," said Rajesh Shukla, director, NCAER.

What is now being tested as a pilot in Krishnagiri, holds promise for addressing India's bigger challenges of ensuring that cheap food reaches target consumers. Technology may not be an answer to all the problems but as this Tamil Nadu district has shown, it is an important part of the solution.

jayadevan.k@timesgroup.com

- 3 If an unnecessary stoppage/diversion is observed, the person alerts the field officer and/or checks with the driver

- 4 Goods reach fair-price shops safely. Electronic weighing at shops reduces pilferage.

- 5 Point of Sale billing machines print bill eliminating the scope to fudge records. Bills are generated in local language so customers can check what they have bought

- 6 Sale data is updated in the central database using GPRS which is monitored periodically. Sale data is compared with stock position to eliminate theft

editors' CHOICE