

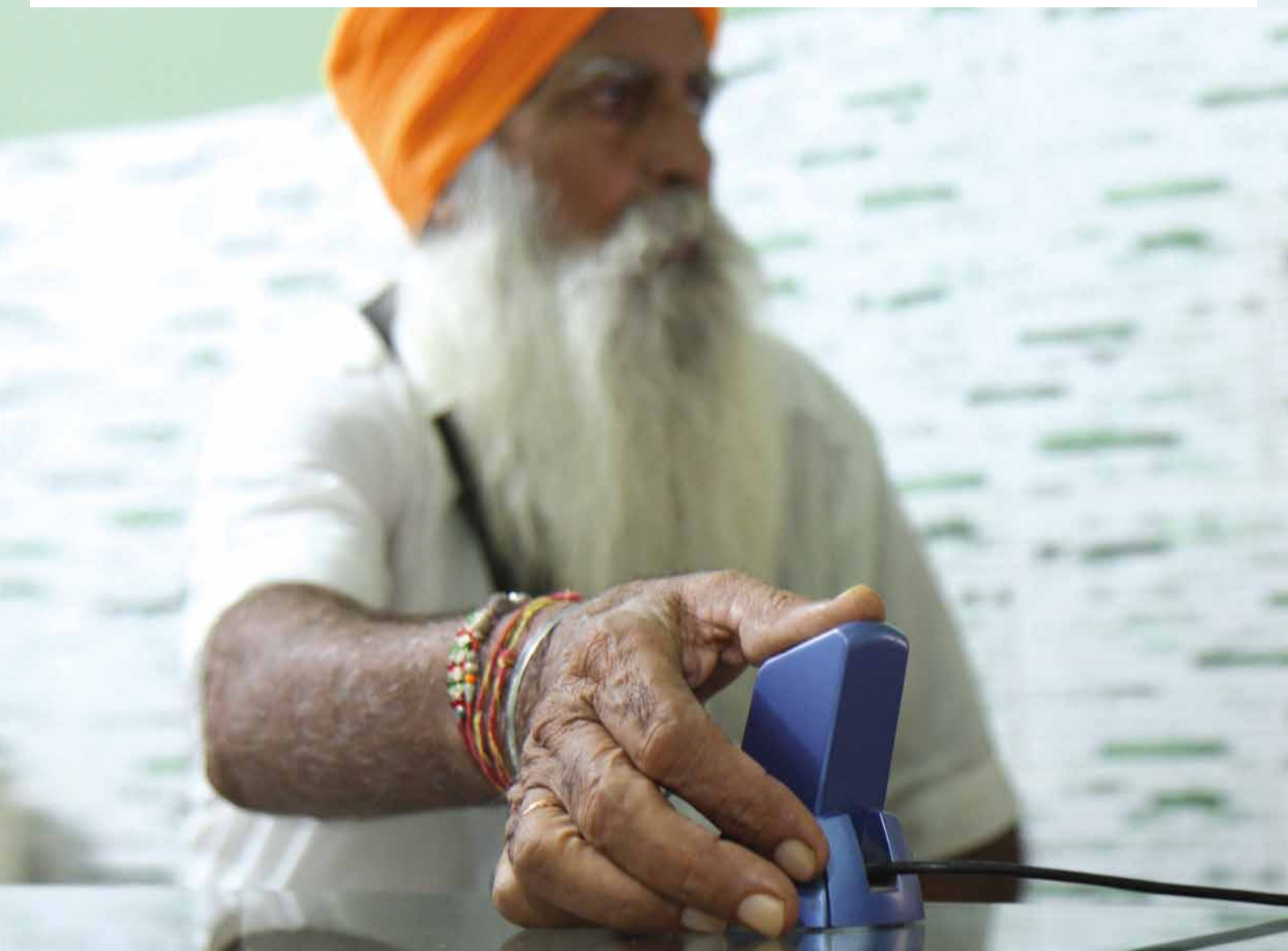
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A Smart Card Solution for India's Public Distribution System (PDS)

How Rashtriya Swasthya Bima Yojana's information technology
can improve benefit delivery under the PDS

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Introduction

India's economic growth over the last years has been as remarkable as it has been uneven. Hence, after two decades of reforms India still needs to implement a strategy to fight poverty and high inequality. More recently, the nation has committed itself to a rights-based approach to development and to assuming the responsibility of assisting the most vulnerable of its citizens through social safety nets and social protection programmes.

One of the largest programmes is the Public Distribution System (PDS), India's only safety net – designed to improve food security through the provision of subsidised commodities. Since the 1960s, the PDS has distributed grains, sugar and kerosene to help households meet their consumption needs. After a reform in 1997, targeted households are now given ration cards according to their economic status, which allow them to buy up to 35 kg of grains per month at subsidised prices. Though the aim of PDS is laudable, it has been criticised for lack of transparency and accountable delivery as well as its inability to effectively serve the poorer population.¹ In order to sustain its economic growth, there is a need for the population to be food secure and healthy. Yet, with more than 200 million people.² affected, widespread mal- and undernutrition remain major challenges for the country.



Since 2008, the Rashtriya Swasthya Bima Yojana (RSBY), India's National Health Insurance scheme, ensures access to essential health care for Below Poverty Line population and various categories of unorganised workers. For its implementation,

a robust technology platform has been deployed. For the first time, IT solutions are being used for a large-scale social security scheme. Based on the usage of biometric-enabled smart cards and the Key Management System (KMS), which verifies and authorises the identity of the beneficiary, a cash- and paperless way of claiming benefits has been instituted.

Enabling a standardisation of processes and increased transparency in data management, the technological platform of the scheme has prompted some State Governments and central ministries to consider the utilisation of RSBY smart card platform to deliver other social protection schemes. Thus, for example, the Ministry of Finance has already taken the decision to use the RSBY smart card platform to deliver Life and Disability cover to RSBY beneficiaries.

Taking into account the large overlap in the targeted groups, some State Governments have started discussions to link the provision of subsidy distribution under the Public Distribution System (PDS) with RSBY. The first State in the country to do so, Chhattisgarh has been expanding the use of the RSBY smart card to include PDS entitlements since 2012. In other States different models of linking the two schemes are being explored and various designs are currently being discussed in the States of Kerala and Punjab. This paper will focus on the introduction of the IT platform and its potential to deliver PDS benefits.

The RSBY's biometric smart card technology supports:

- *verifiable identification of beneficiary*
- *validation of available insurance cover without documents*
- *use of health insurance card across states and insurance providers*
- *multi-vendor network for operations*



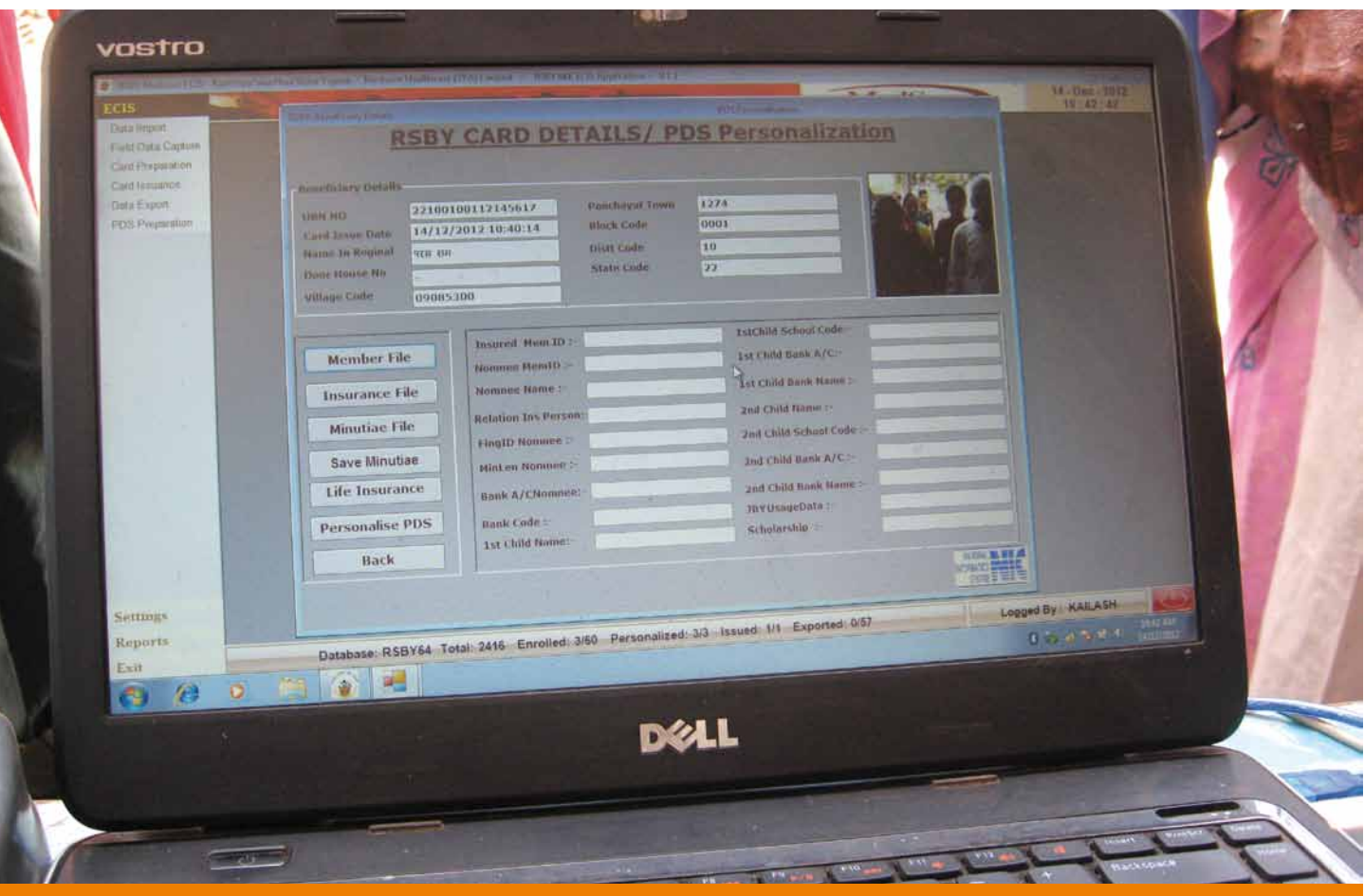
1 Planning Commission Government of India (2008)

2 IFPRI et al 2012

Background

In India, the provision of social protection through the State is enshrined in the Constitution of India as part of the Directive Principles of State Policy³. There exists a wide range of social security programmes, such as contributory and non-contributory schemes for the formal and the informal sector, targeted social assistance programmes for the poor and programmatic frameworks to improve the living standards of the Indian population.

An essential idea is thereby to provide a social protection floor (SPF) for the whole population of India that guarantees basic income security. Key elements of such an SPF would be access to essential goods and services, including health care services, as well as basic income security for vulnerable groups such as children, the elderly and people of active age who are unable to earn sufficient income to meet their basic needs⁴.



RSBY and PDS Enrolment in Chhattisgarh

- 3 Art. 38 State to secure a social order for the promotion of welfare of the people.
- Art. 39 Certain principles of policy to be followed by the State.
- Art. 41 Right to work, to education and to public assistance in certain cases.
- Art. 42 Provision for just and humane conditions of work and maternity relief.
- Art. 43 Living wage, etc., for workers

4 Pillai (2011)

5 The poverty line was originally fixed in terms of income and food requirements in 1978. Since then the Planning Commission has calculated the poverty line every year adjusting for inflation. Since 2002, additional parameters have been introduced such as landholding, type of house, food security, sanitation, literacy, etc.
As of March 2012 the BPL was set at a monthly income of INR 965 per person in urban areas, and INR 781 per person in rural areas. These lines, however, vary among the states, as some have decided to broaden the definition on the state level and to include what is generally referred to as state-BPL and state-APL households.

Food Security in India

Even though India has embraced economic reforms and experienced a significant increase in its economic growth, it remains listed in the global hunger index as a country with alarming hunger. India rates worse than many sub-Saharan African countries, with children's anthropometric and nutritional statuses being among the worst in the world. Indeed, in the last decade and a half per capita availability and consumption of grains has been dropping and the caloric intake of the bottom half has constantly decreased.

In 2001, the People's Union for Civil Liberties (PUCL) Rajasthan, filed a petition against the State as it found the government unable to prevent rampant hunger. The Supreme Court of India has since then passed a number of significant orders converting a total of eight food, livelihood and social security-related schemes into entitlements.

The government is still working on a National Food Security Act which is supposed to guarantee the Right to Food to all citizens. Its core considerations relate not only to questions concerning the target group but, more importantly, also address how to deliver benefits. Alongside ideas of revamping the PDS and of implementing a computerised and smart card-based system, proposals of direct or conditional cash transfers instead of in-kind transfers have been made.



At present, a number of targeted programmes to secure basic income for the poor are in place, among them major national schemes such as the Public Distribution System (PDS), the Mahatma Gandhi National Rural employment Guarantee Act (MGNREGA), the Indira Gandhi National Old Age Pension Scheme (IGNOAPS) and Aam Aadmi Janashree Bima Yojana (AAJBY) – a life insurance scheme for urban and rural poor. Out of these schemes, the PDS is the only programme which distributes in-kind benefits to the poor. Originally a product of the British rationing system during World War II, it has evolved into a crucial scheme for enhancing food security through the supply of food grains at subsidised prices. Although abolished after the war, the GoI re-introduced it in the wake of inflationary pressures in the 1950s. Initially a universal scheme, the PDS has been targeted at households below the poverty line (BPL) and above the poverty line (APL)⁵ since 1997.

However, despite the introduction of targeting mechanisms, the scheme has been criticised for its inefficiency⁶ and vulnerability to fraud. Some estimates say that barely one out of every four rupee spent actually reaches the poor⁷. In the context of high mal- and undernutrition throughout the country, there is thus an urgent need to reform the system. As a first step, a Nine Point Action plan was introduced by the Government to improve the performance of the scheme. Meanwhile a decisive aspect also of the Supreme Court's legal orders of September 2011⁸, the plan provides for an increased usage of technology for an end-to-end computerised operation of PDS, including a ration card related database, and a smart card-based delivery of PDS.

6 UIDAI 2010, Souza/Chmielewska 2011

7 UIDAI (yr n. a.)

8 Written Petition 196 of 2001 by the People's Union for Civil Liberties versus Union of India & Others

9 Beneficiaries considered being 'destitute' in the sense of having little or no regular means of subsistence from his/her own source of income or through financial support from family members or other sources.

10 AAY is a food security scheme reserved for the poorest of poor whose purchasing power is so low that they are not in a position to buy food grains round the year even at BPL rates. It caters to approximately 5% of the population.

11 Srivastava/Tiwary 2009.

Using synergies of social protection programmes: linking the PDS with the technology of RSBY

Established by the Government of India under the Ministry of Consumer Affairs, Food, and Public Distribution, the PDS is jointly managed by the central and State Governments. It is considered a safety net scheme to enhance food security by providing subsidised food through a network of so-called Fair Price Shops (FPS). Major commodities distributed at subsidised prices include staple food grains, such as wheat and rice, but also sugar and kerosene. The distribution is organised hand-in-hand by the central Government and the States. The former is responsible for the procurement, storage and transportation while the Government-owned corporation, the Food Corporation of India (FCI), procures, maintains and issues food grains to the individual States. The latter on the other hand are responsible for the distribution of entitlements to the beneficiaries through an extensive network of over 500,000 FPS.

In terms of both coverage and public expenditure, the PDS is considered to be the most important food security network. With the primary objective of attaining national food security, the FPS sells subsidised food and non-food items to various target groups. Depending on the State, the PDS supports poor households belonging to the groups of Annapurna⁹, BPL, State BPL, Antyodaya Anna Yojana (AAY)¹⁰, APL and State APL.

The need for a reformed PDS

Despite its crucial role in improving the food security of Indian households, the PDS has been criticised for its failure to serve the poorer sections of the population effectively. Common problems associated with the PDS are corruption, flawed targeting and fudged BPL-lists, enrolment problems, delays in delivery, weak monitoring, lack in transparency and lack of accountability.¹¹ One of the main gaps of PDS is the lack of fool proof authentication for beneficiaries. Related problems are leakages and diversions of food stocks, ghost cards, unidentified and falsely identified households in particular.

Common Problems of PDS

- FPS is closed when the beneficiary wants to collect her rations, leading to additional trips.
- FPS claims to be 'out of stock' even when there are sufficient stocks, leading to additional trips.
- The sales person does not treat beneficiary with due respect or is even rude.
- The sales person charges above the set price.
- Deliberate under-weighing of the commodities by sales person.
- Beneficiaries have to spend at least half a day to collect commodities because of long queues.

As hunger and severe malnutrition remain widespread problems, the state of the PDS is a cause for concern. After the petition of the People's Union for Civil Liberties' (PUCL) 2001 against the State, the Supreme Court, amongst other things, ordered States to improve their anti-poverty schemes and to make their PDS more efficient. In their orders regarding the latter, two components in particular were considered: first, the computerisation of the entire supply chain, and second, the electronic authentication of delivery and payments at the FPS. In response, some of the States have begun implementing innovative Information and Communication Technology (ICT). Modern technology enables a more transparent system through regularly updated databases, real-time stock management and an overview of commodities sold at the FPS.

The role of the RSBY smart card system for PDS

The technological architecture of the RSBY scheme is designed in such a way that little effort is required to expand its usage to other social security schemes. The smart card system as used under the health insurance scheme is equipped to include the necessary information for benefit delivery under other schemes. The robust technology platform of RSBY has helped to standardise operations across all stakeholders. In providing

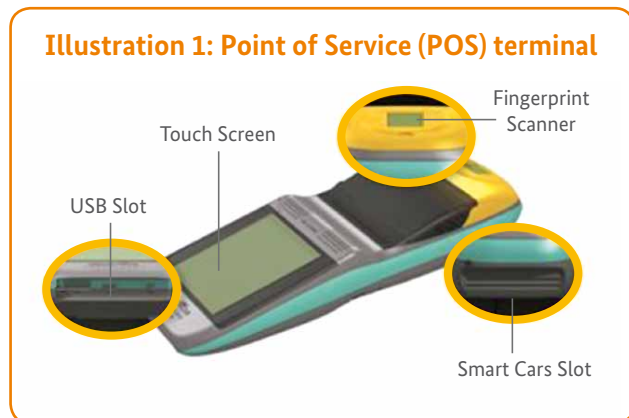
¹² The state of Chhattisgarh decided to universalise RSBY to all citizens of the state. Families that are not covered by the national RSBY are instead covered through the state's Mukhyamantri Swasthya Bima Yojana (MSBY). The benefits under either scheme are the same.

¹³ In Kerala, administrative divisions below the district are called taluk.

¹⁴ The blue ration card entitles a household to 10 litres of kerosene oil per month.

smart cards to the beneficiaries, it uses a biometric authentication system along with a security system – the so-called KMS. This ensures that the smart card cannot be issued to a different person than the entitled beneficiary. In the same way the smart card facilitates a fool proof identification at the FPS. Through

a biometric system at the so-called Point of Service (PoS) the thumbprint of the beneficiary is matched with that on the smart card, thus identifying the beneficiary. Additionally, the platform can record all individual transactions and store personal information, such as biometric data, signature, eligibility for rations, price and intervals of possible supply. All that is needed at the service provider is a PoS terminal that can read the card, match the biometric data it contains, and authorise transactions via existing phone or Internet lines and/or by recording the transaction on the card itself.



The RSBY platform provides a useful and well-tested technology that can improve the performance of PDS through its reliable and more transparent system of benefit management. Intelligent use of such ICT can hence address all the channel-related issues of PDS. With RSBY already reaching to a large segment of the PDS beneficiaries the linkage between the RSBY and PDS can not only be scaled up comparatively quickly but also take place at low cost.

The Unique features of RSBY

Smart Cards

Every beneficiary family is issued a biometric smart card which contains the fingerprints and photos of the individual beneficiaries. The empanelled hospitals are all IT-enabled and connected to the server at district level so that regular data flow can be ensured. The data on the card reduces the potential for fraud as it ensures that only the rightful beneficiary can use the card.

Portability

A unique feature of the RSBY is its portability. Beneficiaries can use their RSBY card at any empanelled hospital across the country, irrespective of the district in which s/he was enrolled.

Fool proof and leakage-free

A complex system of authentication and verification of beneficiaries not only ensures that the smart card is issued to the rightful beneficiary but also allows for an extensive collection of data of all smart card transactions at each level. In this way the potential for fraud and diversion is eliminated.

Cash- and paperless

At no time do RSBY beneficiaries pay for any services unless they exceed the annual allowance of INR 30,000. Transactions do not require any forms to be filled out. All claims are processed and paid electronically.

Empowering beneficiaries

The portability of the RSBY card enables beneficiaries to select any empanelled public or private hospital across the country. Consequently, beneficiaries are empowered to choose their health provider freely.

A business model for all stakeholders

The scheme is designed as a business model in that it has incentives built in for all stakeholders: As the premium is paid for each household enrolled, the insurer has an interest in enrolling as many households from the BPL list as possible. With the payment made per beneficiary, treated hospitals also have an incentive to treat numerous beneficiaries. Additionally, as patients can choose the institution, there is competition among health care providers, which improves the quality of service delivery. However, insurers need to monitor hospitals to prevent unnecessary treatments or fraud through excessive claims.

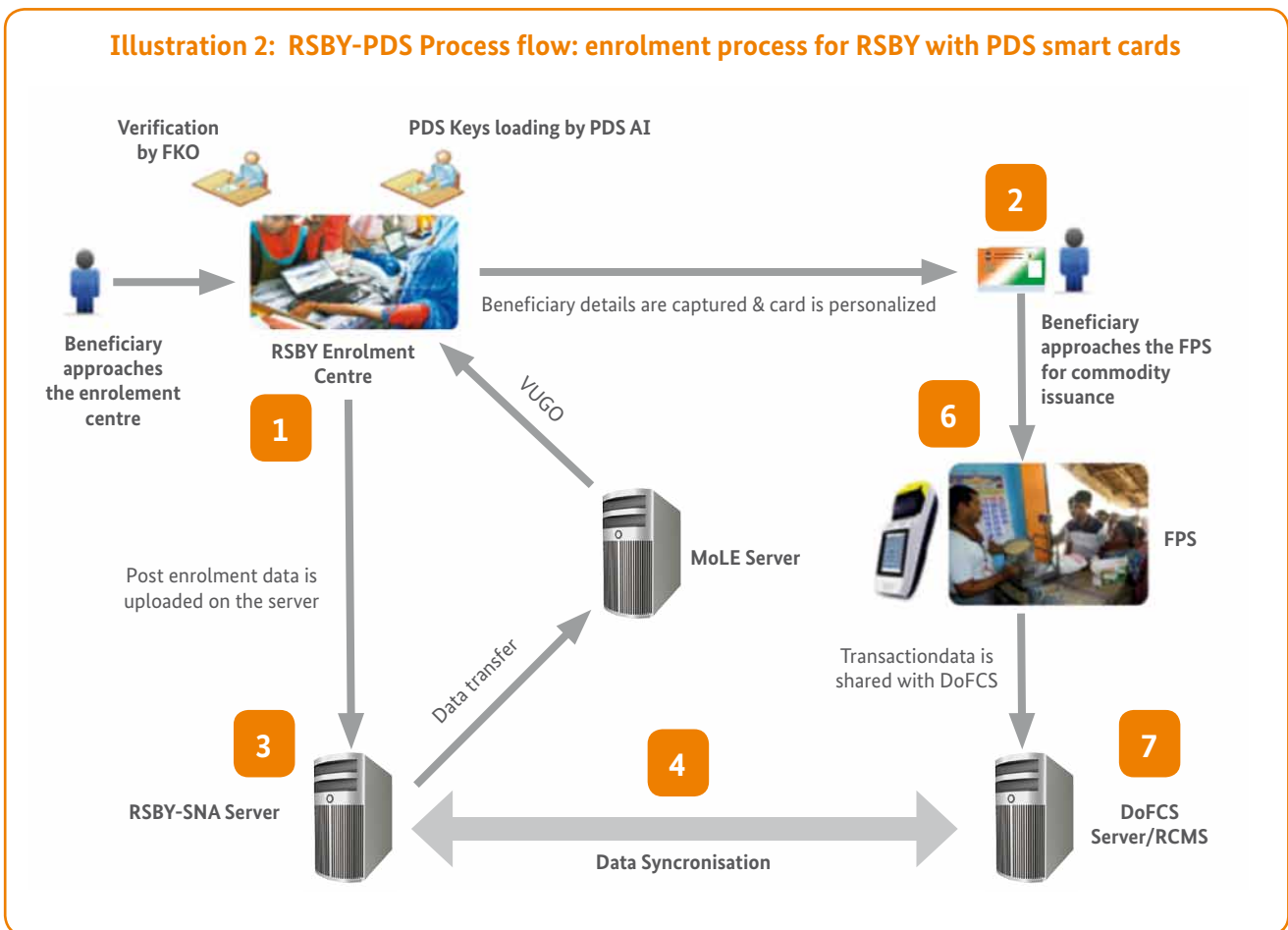
Developing an RSBY – PDS process flow

With the RSBY smart card designed to include other social security schemes, the smart card chip has a common area for demographic and biometric details of family members, and separate areas for the relevant data of each scheme. In case of the PDS, this separate area can save the static information, i.e. ration card number, ration card type, numbers of family members and address along with the transactions that has been done at the FPS.

The RSBY smart card platform is therefore equipped to provide the benefits of PDS in addition to the health insurance. The only requirement is for an additional software that can ride on the smart card. In case of beneficiaries being eligible only for PDS benefits, e.g. State BPL and APL households, the same smart card can be issued without the health insurance benefit. Hence, at the time of enrolment the PDS application is loaded on the RSBY smart card alongside the RSBY benefits, given that the card holders are entitled to both.

A detailed process flow for using the RSBY smart card for PDS was jointly developed by the Ministry for Labour and Employment (MoLE), GoI, and GIZ, outlining the roles and responsibilities of all the departments (illustrated in figure 3):

At the time of enrolment, all information and required biometrics, including the AADHAAR number if possible, are taken, verified by the field key officer (FKO) and saved on to the RSBY smart card (1). In a second step, and authorised through the PDS authority card (PDS-AI), the PDS application are loaded on the smart card. After all details have been captured the smart card is personalised and issued to the beneficiary on the spot (2). Post-enrolment, the data are shared with State /Union Territory (UT)'s Food and Civil Supplies Department and the RSBY-State Nodal Agency (SNA) servers (3). The two servers are synchronised (4) and inform both the Ministry of Labour and Employment and the State Department for Food and Civil Supply (DoFCS), as well as subsequent enrolment centres with all relevant demographic and validated unique relationship number generated data (VUGD)(5).



The role of AADHAAR

AADHAAR is an individual identification number issued by the Unique Identification Authority of India (UIDAI), on behalf of the GoI. It is a twelve-digit number which is issued to every individual residing in India, irrespective of age and gender, and which serves as a proof of identity and residence all over the country. The number is unique and remains valid for life. It is connected with the individual's biometric data, which are stored at the back end of the system. Easily verifiable, it provides significant assistance with both governmental and non-governmental service deliveries such as banking, mobile phone connections and benefit deliveries. With the AADHAAR project, the GoI aims primarily to ensure inclusive growth by providing every citizen with a form of identity. For this reason, the RSBY platform is also designed to capture the AADHAAR number of every beneficiary during the enrolment. However, AADHAAR enrolment with 280 million AADHAAR numbers having been issued to date (February 2013) is not yet complete. Moreover, it can only be used when connectivity is assured. At present, the RSBY therefore cannot rely on it, yet it is prepared to be linked with the AADHAAR system once all beneficiaries are enrolled

After receiving her smart card, the female head of the household is identified as the member of the family who can approach the FPS and collect her ration. Dependent on the State's policy, a ration card holder may also identify up to two proxy persons who can collect rations on her behalf. In such cases, fingerprints and further details of these persons are taken at the District Supply Office (DSO)/Taluk Supply Office (TSO) kiosk and are also loaded to the card in the PDS area.

When the beneficiary approaches the FPS (6), the shop has a PoS device which can work online as well as off-line. It contains details on per family quotas and special entitlements. The application calculates the quantities of each commodity to which the family is entitled and also stores the ration card numbers assigned to it.

When the card of a beneficiary is inserted, the PoS device reads the off-take per commodity for the relevant period from the card and calculates the outstanding balance. Based on this calculation, it allows the transaction to go through. On completion the transaction is recorded on the smart card as well as in the system. The information will be sent on a daily basis from the FPS to the server at the State Food and Civil Supplies Department (7), with the latter being able to track all off-take of commodities at any FPS in virtually real time.

In case changes have to be made to the smart ration card data, i.e. family composition, category change, address change, bifurcation and cancellation of card, the beneficiary can contact the DSO/TSO kiosk. Changes will be registered in the Ration Card Management Service (RCMS) Server and will flow from there to both the FPS PoS and the RSBY- SNA database for synchronisation.

Benefits of the adaption of the RSBY platform for PDS services

An RSBY-PDS convergence has the potential to provide services of both programmes to a similar target group through the same smart card. By using a common IT system for both social security programmes, the financial and human resources of the central and State Governments can be saved.

Owing to a more transparent flow of information, the proposed system can address the channel-related issues that plague the PDS. With the key management system of RSBY developed by the National Informatics Centre (NIC) the smart cards are guaranteed to be fully secure. There is no scope for duplication or misuse as all cards are issued on the spot and contain all the biometric data. Hence, the percentage of ghost ration cards in PDS can be significantly reduced. At the FPS, the PoS device will increase the transparency of operation. By identifying the beneficiary through the biometrics on the card as well as the recording of lifted rations, all services in the PDS at the beneficiary and FPS level will be tracked and the problem of leakages and diversion of stocks can be addressed.

In turn, the monitoring of the actual disbursements of each FPS via the smart card system allows for the allocations to the FPS to be regulated according to their actual demands. The State Governments can track on a daily basis the utilisation of commodities as the data will be transferred directly and at least once a day from the FPS to the central server. Additionally, the system allows multiple transactions for a single commodity by

the same beneficiary as the collected quantity is recorded on a real-time basis. This allows beneficiaries to collect their monthly quota in smaller proportions according to their actual needs and requirements. After the transaction, a printed receipt is issued to the beneficiary confirming the reception and quantity of their entitlements.

At the same time the use of a smart card system also supports portability: the smart card empowers beneficiaries to decide from which FPS they want to collect their rations, thereby gaining bargaining power. This will motivate FPS to compete and improve service delivery. These procedures therefore not only increase the transparency of transactions on both the beneficiary's and the providers' sides, but may also result in improved FPS services.

Apart from the improved PDS services, the convergence of the schemes could also boost the usage of RSBY and thus contribute to the aim of Universal Health Care (UHC). Currently, RSBY enrolment quotas are around an average of 50 per cent of all eligible BPL families; however with the importance of the PDS ration card, which the poor often use for proof of identification and residence, the combination of both schemes on one smart card could also enable a significant increase in the enrolment of eligible beneficiaries for RSBY.

Major challenges

For successful implementation it is necessary to also consider the possible challenges and to develop mitigation strategies. Connectivity and the speed of Internet connections are major problems in India. However, baseline surveys on the status of connectivity in a particular area can ensure that the relevant FPS is connected.

Another crucial aspect is to understand that the implementation of such a smart card system may partly act against the interest of many FPS agencies. With black marketing being a lucrative secondary business opportunity the increased transparency could make shop keepers hesitant to support the new technology. It is therefore possible that some shop owners may sabotage the new system by e.g. forming a nexus and claiming that the PoS does not work, thereby boycotting the system.

However, such problems can be mitigated if beneficiaries' entitlements are portable and beneficiaries can choose the FPS from which they want to purchase their food. Under such circumstances, any dealer claiming that his PoS does not work would risk losing his business. Another possibility is to make available a special PDS truck whenever reports are received that many FPS are not working in one area. The trucks can then distribute food to the beneficiaries in front of the FPS – with the latter losing out on their business.

A PDS truck in the state of Chhattisgarh



RSBY smart cards with PDS capacity: experience from the State of Chhattisgarh

In Chhattisgarh, the success of RSBY has motivated the Ministry of Labour and Employment, GoI, and the Department for Food and Civil Supplies and Consumer Affairs of Chhattisgarh to pilot the provision of PDS benefits through the RSBY platform. As the State decided to universalise RSBY¹² there is no need to issue a second card for PDS rations but instead every PDS beneficiary uses his/her RSBY smart card without exception. The convergence of RSBY with the computerised PDS has not only enabled the use of a single smart card but also resulted in a significant advancement in flexibility; beneficiaries can now collect their rations at any FPS of their choice, just as they can choose their hospital under RSBY.

While RSBY was only launched in 2011, the computerisation of Chhattisgarh's PDS has been operational since 2008. The latter included the creation of (1) a Unified Ration Card Database, (2) an automated allotment, (3) online, real-time inventory management at warehouses, (4) SMS alerts and reports in the public domain and (5) call centres and a Complaint Monitoring System.

As a result of these interventions, the PDS in Chhattisgarh has been improving since 2008. However, two areas of concern have motivated the State to initiate the convergence of PDS with the RSBY platform: first, beneficiaries, despite generally receiving their full entitlements, have faced several problems at the FPS: the shops were often closed when the beneficiaries wanted to collect their rations or the owners declared that they had no stocks; it often took beneficiaries at least half a day just to collect their rations, and the shop keepers often treated their clients with disrespect or even misbehaved towards them. Secondly, there was clear evidence of proxy issuances (i.e. recording a transaction to a beneficiary without actually issuing the commodities), mostly in case of APL allocations and kerosene, as demand for these items is comparatively low.

With the application of the RSBY smart card system, the State has set the following objectives: (1) improve service delivery, (2) reduce diversion, (3) empower beneficiaries, (4) weed out bad Fair Price Shops and (5) create transparency.

The distribution of PDS benefits through the RSBY smart card started in October 2012. Currently Chhattisgarh has rolled out three pilots in the districts of Bilaspur, Durg and Rajnandgaon city. In these places, the PDS's ration card has given way to the RSBY smart card, sometimes also called PDS smart ration cards (SRC). Additionally, FPS authority cards have been introduced that constitute the necessary counterpart at the dealer's end, bearing the necessary details on registration, beneficiaries, sale



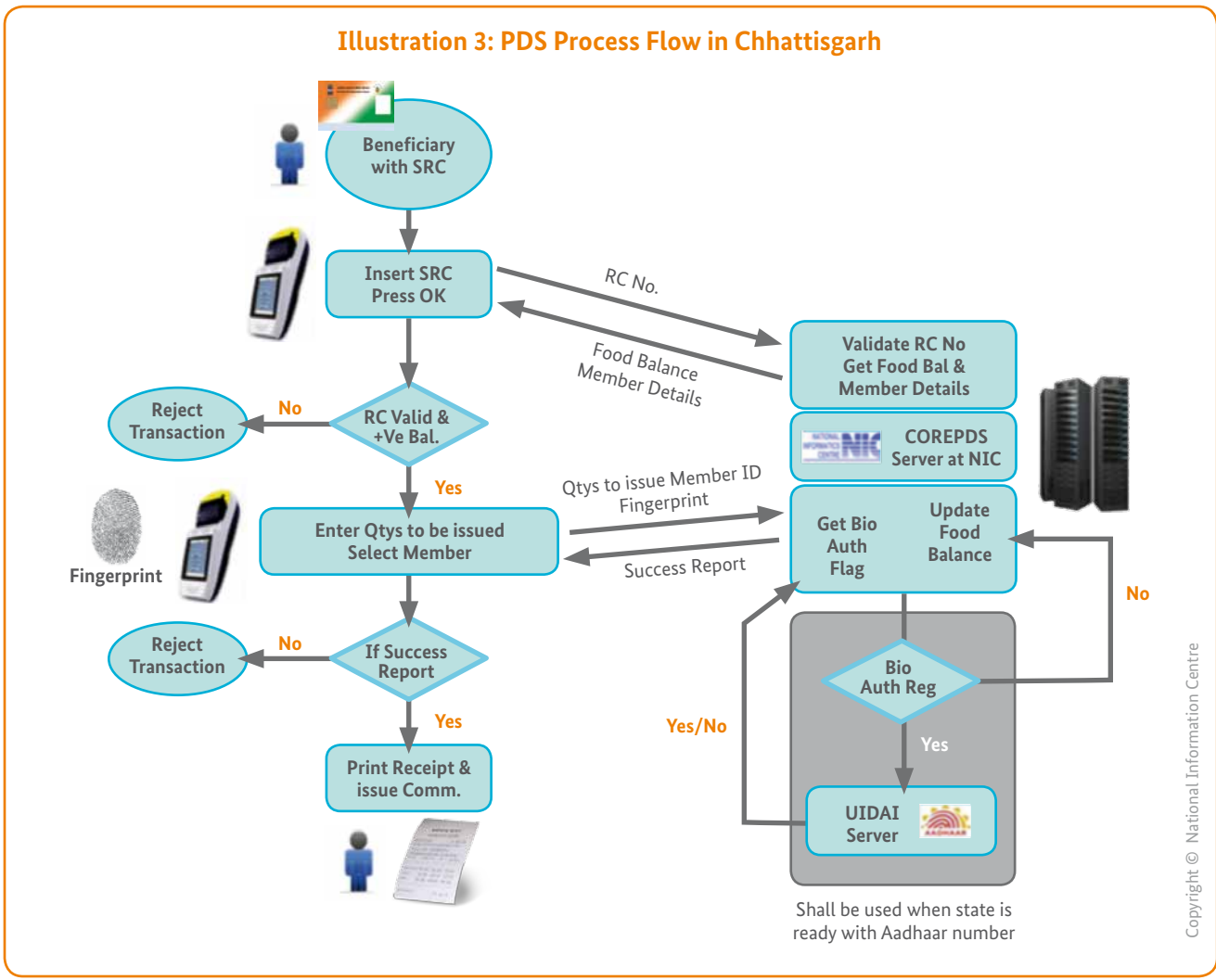
Queue in front of a FPS, Chhattisgarh

policy, prices, stock and transactions, and automatically recording all service delivery under the new platform.

RSBY - PDS process flow in Chhattisgarh

The process flow developed for Chhattisgarh is shown in Illustration 4: as described before, the beneficiary under the new system needs only to present their RSBY smart card (or Smart Ration Card [SRC]) at the FPS where it is inserted into the PoS. The latter checks the ration card number in the system which

Illustration 3: PDS Process Flow in Chhattisgarh



is synchronised daily with the server at the NIC. If the number is valid all necessary information on card validity and remaining entitlements are displayed on the PoS. The beneficiary then informs the shop keeper of the quantities (here qtys) she wants to collect. To confirm the bona fides of the transaction the beneficiary is then asked to give her fingerprint which is immediately matched against the biometric data in the system. If the match is successful, a receipt is printed and handed out. At a later stage, it is also possible to use the UIDAI server instead of the NIC server, as the same biometric data is taken at the enrolment for AADHAAR. However, AADHAAR enrolment is currently still incomplete (see for Box 5).

First results

The computerised PDS has been functional in Chhattisgarh since July 2012. Since November 2012 three districts (with approximately 300 FPS) have linked their PDS with the RSBY system. During the first months of operation the following outcomes were achieved:

- The computerised system reduced diversion and reported savings ranging from 5% (BPL grains) to 30% (APL grains).
- There was a significant reduction of ghost cards and black marketing due to the increased transparency in the system.
- PDS beneficiaries were empowered because the smart card is portable and enables transaction with a print out to beneficiaries; indeed 25% migrated to other FPS, with 18% of the FPS losing more than 25% of their business.
- Beneficiaries saved time and money when lifting their rations with the average number of visits being reduced to 1.8 from initially four to five times a month.
- Due to portability, there is now the possibility to weed out bad FPS, i.e. those that serve less than 75% of the affiliated customers.
- The introduction of competition between FPS generally improved customer services.
- Office work for the State Department for Food and Civil Supplies was reduced.
- Good record keeping has been enabled.

Further developments in other Indian States

Apart from Chhattisgarh, GIZ has supported the development of further process flows, in particular for the States of Kerala and Punjab. Neither of the States has yet decided to adopt the proposed models. However, as the developed process flows exhibit the flexibility of the platform to be adapted to different environments, the proposals present a possibility for all other States that yet have to improve their PDS. The following will thus briefly illustrate the two cases.

Kerala: improving the PDS through the replacement of ration cards by RSBY smart cards

The State of Kerala has an extensive network of wholesale and retail outlets to ensure equitable distribution of the food grains in Kerala. With a network of over 14,267 FPS – known as authorised Retail Distributors (ARD) in Kerala - and 335 authorised Wholesale Dealers (AWD), the Public Distribution System serves up to 7,970,657 households. Major commodities distributed by the State Government are levy sugar, fortified wheat, wheat, rice and kerosene oil. Additionally, the State Civil Supplies Corporation Supplyco is part of the PDS working parallel to the FPS in the existing system through five regional offices, 56 depots and more than 1,200 retail outlets. Supplyco substantively helps to assure food security by regulating the market price of essential commodities at reasonable prices and reaching out to the rural poor and the urban rich alike.

In each taluk¹³, the allotted food grains wheat and rice pass through two levels of distributors before they reach the beneficiary: first, the authorised Wholesale Dealer collects the food grains from Food Cooperation India and hands them over to the ARD. Second, the beneficiaries collect them from the ARD. As the requirement of each AWD is fixed, District Supply Officer, who is the Departmental Head of the District, can more easily allocate all rationed articles to the taluks in each district. The TSO in turn makes allocation to the AWDs in his taluk. The TSO is also responsible for monitoring all rationing activities at field level, i.e. the rationing of commodities in the PDS to the ration cardholders.

▶ A possible role of the RSBY smart cards

With the support of NIC and GIZ a process flow for linking both schemes has been developed which would replace the ration card altogether. As described above, the authentication of beneficiaries in the new system is fool proof and communication between the department and the FPS becomes more transparent and immediate. The major advantage of the smart cards lies in the advancement of registering only rightful beneficiaries and overseeing the actual transactions at the FPS. This way the Government receives reliable and immediate information on both the beneficiaries and the individual transactions and thus knows what is required; the PDS can function more efficiently, as can the Government, which gains better control over its expenditures.

However, practical issues regarding management on the ground remain. The PDS in Kerala not only covers a broader group of beneficiaries (as it includes State BPL, and State APL) but also requires broader services. Every day approximately 100,000 modification requests are submitted that officially have to be managed within a day. Apart from that, the ration card functions for many poor households also as their proof of ID and residence. There is therefore a need to manage these cards outside the enrolment camps that take place only once a year. Consequently, a well-functioning PDS requires a more intensive management of ration cards. The question of how to maintain and successfully manage both schemes on the same card is currently still under discussion.



Taluk Office in Trivandrum, Kerala



At a FPS in Kerala: keeping track of all allocations: daily, family-wise and weekly

Punjab: subsidised kerosene oil distribution through the smart card system

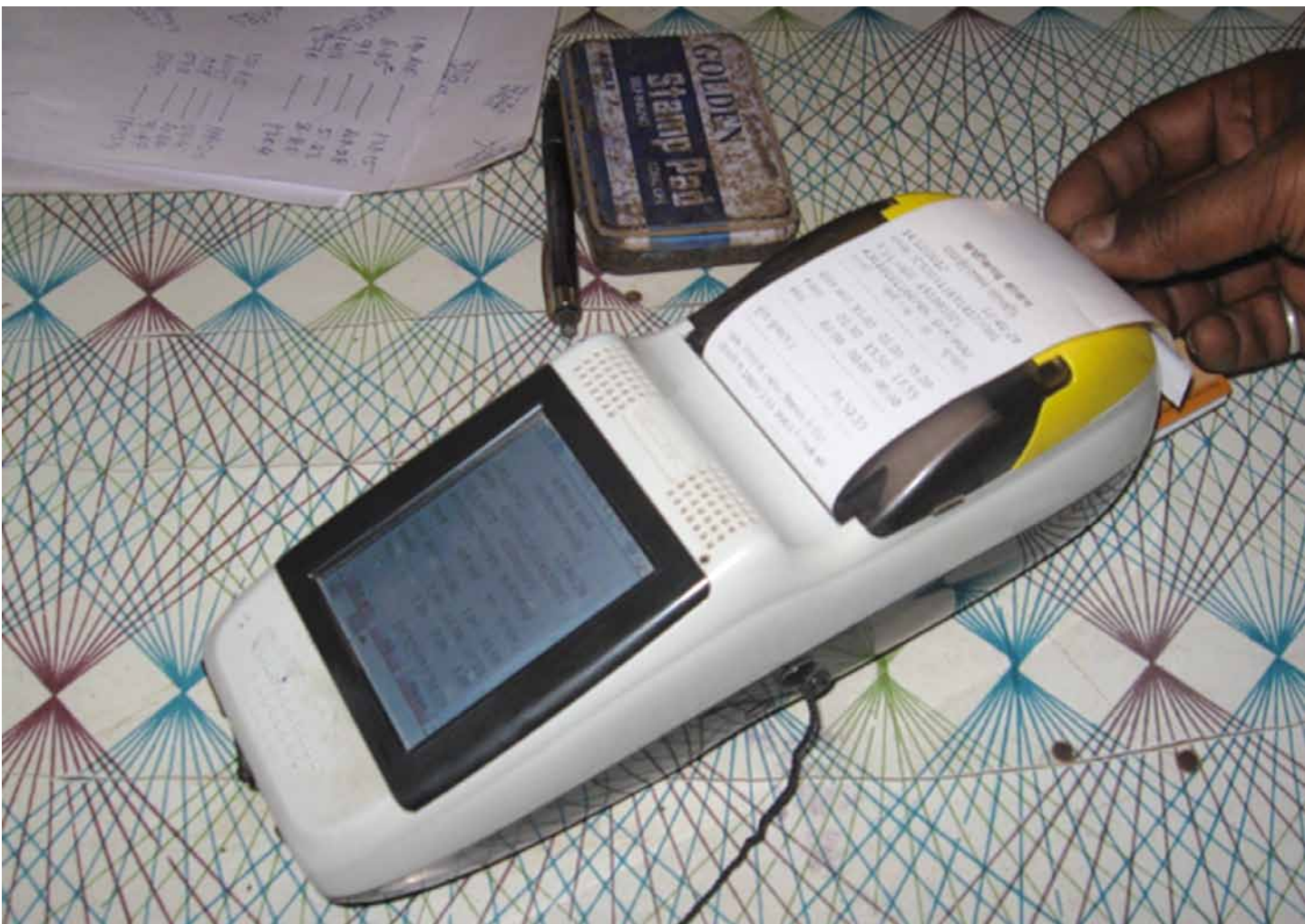
The State Government of Punjab issued a revised policy for distribution of subsidised kerosene oil (SKO) under PDS in April 2012. Previously, the kerosene quota in Amritsar was 2.6 million litres, of which Antyodaya Anna Yojana (AAY), BPL and blue ration card¹⁴ holder families were entitled to ten litres per month and APL families were entitled to five litres per month. With the new policy, AAY and BPL families are entitled to ten litres per month; blue card holder families are entitled to five litres per month while APL families are no longer entitled to SKO. The central Government hence cut the SKO quota of Punjab by 63%, leaving Amritsar with reduced total of 552,000 litres for distribution.

The distribution of kerosene must be organised at different levels. After the quota for the State is decided by the central ministry, the monthly allocation is communicated to the State through the Petroleum Planning and Analysis Cell (PPAC). The latter provides the company-wise break-up of the total allocation for the month. Once this is finalised, the effective distribution and monitoring of PDS kerosene is the responsibility of the State Government. The State Food and Civil Supplies Department on receiving the advice from PPAC decides on the district-wise allocation and the FPS allocation in various districts. At the same time, the oil companies are responsible for making the oil available at their depots where the wholesaler collects the respective quantity before the 25th of every month under the direction of Department of Food and Civil Supplies. After collection, the wholesalers deliver the oil to the FPS as per the advice given by the DoFCS and in accordance with the quantity allocated to them. In case there is any undistributed quantity available at the wholesaler's end at the end of the month, the State Government carries this forward.

▶ A possible role of the RSBY smart cards

With the application of the RSBY smart card system, the total of all transactions to beneficiaries could be monitored and directly communicated to the server at the DoFCS. Consequently, the latter would be able to offer improved advice on district-wise and FPS-wise allocation based on up-to-date figures on beneficiary enrolment and transaction history. The smart card would thus enable the improvement of the monthly calculation of quantities to be collected by the individual FPS while ensuring that only the rightful beneficiary receives his/her entitlements, leading to greater clarity and possibly significant savings for the State Government. In contrast to Kerala, however, this model is limited to the kerosene distribution under PDS, while the ration card for food entitlements continues to exist as before. However, there is no interference as the systems can exist alongside each other with the IT platform open for expansion.

Punjab has yet decided to not go through with the model for the time being.



PoS device with printed receipt

Contribution of German development cooperation

Germany can look back on nearly 55 years of development cooperation with India and is currently active in the priority areas of environment, energy and sustainable economic development. In each priority area Germany cooperates with the central Government and the States, often by focusing on particular programmes or projects.

Within the priority area of sustainable economic development, German development cooperation started in 2008 to work with the Ministry of Labour and Employment, with GIZ directly involved in designing and implementing RSBY. Since then, cooperation has been extended and in 2011 the Indo-German Social Security Programme (IGSSP) was initiated.

The programme provides support for implementing a coherent, accessible and affordable social security system for workers and their families in the unorganised sector. IGSSP works closely with the Government at all levels. Apart from the extensive support to MoLE with respect to RSBY, IGSSP is working with several State Governments on introducing additional benefits. It provides support in preparing documents that constitute the framework, in developing software and in devising stipulations for its implementation. Moreover, IGSSP has started an initiative to provide additional capacity for the State Nodal Agencies in charge of RSBY. Most recently, it has also provided advice and technical assistance for the expansion of the RSBY platform for further social security schemes. In this context, IGSSP supports the use of the RSBY smart card system for PDS.

For the latter, IGSSP provides extensive documentation, develops process flows, supports capacity building and engages in the coordination of processes for software development with the NIC, Smart Card Service Provider (SCSP) and the certifying governmental agency Standardising Testing Quality Control (STQC).

Due to a more or less completely automated PDS system, the support in Chhattisgarh has mainly focused on the technical assistance to link the computerised PDS to the RSBY platform. In Kerala and Punjab on the other hand, the entire process flow of using the RSBY platform for PDS use has been introduced. In this case, documentation, development of process flows and technical assistance were provided, although the decision to implement the system has yet to be taken by the States.



PDS Beneficiaries with their smart cards at a FPS

The road ahead

The Department for Food and Public Distribution (DoF&PD), Government of India, issued guidelines on how to computerise the targeted PDS, as required by the Supreme Court order of September 14, 2011. Against this background, the model of linking the scheme with the RSBY platform offers the States the potential to fulfil the requirement to improve their PDS. With the RSBY smart card architecture designed to include various social security schemes, the robust technology platform is useful especially where there is limited or no Internet connectivity and in areas where not every beneficiary has yet received their AARDHAR number. Due to the positive experience with the use of the RSBY platform for PDS in the State of Chhattisgarh, it has been proposed that the RSBY model be listed among the suggested 'good practices' in the department's guidelines for end-to-end computerisation. In April 2013, the DoF&PD agreed to include the RSBY model in its guidelines, which will create further possibilities of expanding the usage of RSBY smart cards to PDS.

As of today, Chhattisgarh is the first State to have successfully converged the two social security schemes through the use of the same smart card system. The State will go ahead with expanding the infrastructure to its entire territory. The challenges faced in the successful synchronisation of two such comprehensive schemes still require careful consideration, documentation and designing. The convergence needs to be well-planned and the management on the ground must also be considered. As currently observed in the case of Kerala, where the design has been developed but questions remain as to how to practically manage and maintain the PDS under the RSBY platform, the expansion of the RSBY platform to other programmes is still at an initial stage and further experience is to be gained. The central RSBY team, supported by GIZ, will thus continue to offer their technical expertise for the broader utilisation of the RSBY platform for other social security programmes and particularly for its expansion to the Public Distribution System.



A Fair Price Shop in Chhattisgarh

Further sources

Webpages

RSBY	http://www.rsby.gov.in/
IGSSP	http://www.giz.de/themen/en/34954.htm
UIDAI	http://uidai.gov.in/
DoF&PD	http://dfpd.nic.in/
Supreme Court Orders	http://judis.nic.in/supremecourt/chejudis.asp

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Abbreviations

AAJBY	Aam Admi Janashree Bima Yojana
AAJ	Antyodaya Anna Yojana
APL	Above Poverty Line
ARD	Authorised Retail Distributor
AWD	Authorised Wholesale Dealer
BPL	Below Poverty Line
DoFCS	Department of Food and Civil Supplies (State)
DoF&PD	Department of Food and Public Distribution (central)
DSO	District Supply Office
FCI	Food Corporation of India
FKO	Field Key Officer
FPS	Fair Price Shop
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
GoI	Government of India
ICT	Information and Communication Technology
IGSSP	Indo-German Social Security Programme
IGNOAPS	Indira Gandhi National Old Pension Scheme
KMS	Key Management System
LPG	Liquefied Petroleum Gas
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MoLE	Ministry of Labour and Employment
MoPNG	Ministry of Petroleum and Natural Gas
NIC	National Information Centre
PDS	Public Distribution System
PDS-AI	PDS Authority Card
PoS	Point of Services
PPAC	Petroleum Planning and Analysis Cell
PUCL	People's Union for Civil Liberties
RCMS	Ration Card Management Service
RSBY	Rashtriya Swasthya Bima Yojana
SCSP	Smart Card Service Provider
SKO	Subsidised Kerosene Oil
SNA	State Nodal Agency
SPF	Social Protection Floor
SRC	Smart Ration Card
STQC	Standardising Testing Quality Control
TSO	Taluk Supply Office
UIDAI	Unique Identification Authority of India
UT	Union Territory
VUGD	Validated Unique relationship number Generated Data

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