

## ANNEXURE VIII

### Technology Application Models

The technology application model is premised on providing financial services in the rural areas through the BC Model using low cost and simple IT based solutions. There has to be a central system which could be a shared infrastructure providing for economies of scale and consequential cost benefits, and a field system which enables access to the central computer by the business correspondents. The account holders have a Multi-application Smart Card that leverages technology and takes mainstream banking and financial services along with other non-financial services having a social impact, to the customer last mile in a cost effective manner. Biometric-enabled smart cards will be enabled for various financial and non-financial transactions in the field through multiple handheld devices that will be carried by the agent. The backend transaction processing system will cater to the processing and settlement of the transactions captured on the field. While the models which are prevalent in the market today may allow a shared infrastructure, they differ widely in the field systems which enable access through Simputers, and other hand held devices including mobile phones accessing the central system through fixed lines or mobile technology.

The various models have the following essential components :

- A customer with a Multi-application Smart Card which can be a contact card or a contact-less card,
- BC with a simputer / hand held terminal / mobile phone enabling banking services,
- Merchant establishments as points of sale with a terminal,
- A CPU,
- The bank,
- A centralised card management for each of the above systems.

#### **Multi-application Smart Card Features (Financial Innovations and Network Operations (FINO) Ltd.)**

- It is advisable to adhere to international best standards comparable to EMV and CEPS standards and should have PKI.
- Biometric enabled smart card that offers the most secure and reliable form of identification by means of world-class fingerprint verification mechanism.
- The Unique Relationship Number (URN) is a number assigned to the customer that helps track customer identify across products, across multiple issuers. It may be called by any other name also.
- Industry standard security featuring using the 3-DES scheme that prevents any unauthorized access to the card and its associated applications.
- The card may contain all the demographic information, health details & net worth details of the customer that provides reliable and ready-to-use information for provision of various products and services.
- The multi-application platform allows loading of various financial and non-financial applications on the same card – banking (savings, loans, RD & FD), financial services (insurance, pension, investments, mutual funds, etc), remittances, community welfare programmes (Rozgar Yojana, public distribution system, etc), health schemes, etc.

- The Card may be enabled for PIN also, so that it can be used on the existing infrastructure like POS machines and ATMs.

The features of each of the illustrative models are as under :

*Pigmy Collection Terminal Model (Krishna Bhima Samruddi Local Area Bank) :*

- Deploys Pigmy Collection Terminals – which are actually hand-held computers, weighing just about 400 gms,
- Uses them to collect installments on advances, daily deposits for pigmy schemes and other deposits,
- Can store information for up to 1,000 accounts,
- Receipt can be printed and given on the spot, whenever a transaction is made.

*Simputers Model (Krishna Bhima Samruddi Local Area Bank) :*

- Deploys Simputers (**Simple Computer** or **Simple In-expensive Multi-lingual Computer**) - a product with technology from IISc-Bangalore,
- Low cost portable palmtop - alternative to personal computers,
- Breaks the literacy barrier through natural user interfaces based on sight, touch and audio,
- Has support for multi-lingual text and speech output,
- Has a personalized smart card facility facilitating community-sharing, with no user limitation,
- Customers go to a designated Simputer ‘ATM’,
- Bank employee enters data into the Simputer and accepts / dispenses cash and a receipt is printed out.

*Field Hand Held Device Model (FINO Ltd.) :*

- Compact and portable device, easy to carry in the field and ideal for a rural / semi-urban scenario,
- A 2-4-line display, 16-key keypad, a thermal printer with 8 hours of battery life,
- Capability to work uninterrupted in a completely offline environment,
- Connectivity agnostic - can function in the field on any means of connectivity that is available in the country - GSM / GPRS, CDMA and the telephone line,
- Device has backward compatibility to support the magstripe cards,
- Embedded fingerprint scanner in the device enabling biometric validation of a customer in the field in offline mode,
- Access to operate the device can be restricted by means of the biometric feature,
- Support for various financial / non-financial transactions in offline mode in the field such as deposit, withdrawal, account transfer, standing instruction, new product request, alerts, etc.

*Model Using Mobile Technology (A Little World Pvt. Ltd.- ALW) :*

- Central database of various accounts including no-frills zero-balance card accounts at the central computer with the facility to become a pass through for the bank’s host computer,
- Based on new generation Near Field Communications (NFC) mobile phone technology; contact-less radio frequency identification (RFID) smart cards and integrated fingerprint matching,

- Cards have an extensive ID profile, multiple accounts, last known balance and a history of recent transactions. RFID smart cards with high end security (similar to cards embedded in the new United States (US) passports),
- Operators have portable equipment : NFC mobile plus fingerprint unit plus receipt printers,
- All are portable and battery operated. Can last 10 days without electricity,
- Fingerprint matching for all debits to the account,
- Greatly reduced cost per transaction compared to branch based or ATM transactions,
- Transactions online to the banks host (via GPRS or encrypted SMS). Deposit and withdrawals can also be carried out offline, based on risk parameters and counters embedded in cards and devices. Offline transactions are to be sent back to the backend as a batch,
- Customer account is centrally held with the bank (not at the local branch),
- BC keeps working capital in an aggregator account in the banks core banking branch,
- The local operator - customer service point (CSP) deposits some working capital into the BC's account in Bank, and also keeps a reasonable amount of available cash at the outlet,
- Deposit and withdrawal transactions are instantly settled between the customer account and Business Correspondent's account (credit of one account and corresponding debit of the other) - both accounts are in the same system,
- Full traceability and audit trail of the transactions are maintained.

The above models have already been adopted by large private sector and public sector banks, and also a few local banks. The choice of the model has been made by them as per their requirements.

### **IT-enabled Financial Inclusion Model (ALW)**

An IT-enabled financial inclusion model is basically implemented as under :

- Information regarding potential customer is collected by BFs and passed on to the bank in a prescribed format or the BC enrolls the customer account for the bank.
- Banks carry out KYC scrutiny and arrange for opening a Zero Balance Savings Bank Account for the customer, after relevant information is captured.
- The information captured for every customer comprises his photograph, fingerprints and signature (optional). This information is encrypted in the smart card.
- While handing over the card to the customer, the BC activates the card for the customer by fingerprint identification.
- At the time of activation, the balance available in the bank account is recorded on the smart card.
- The operations in the account are simple and easy to follow. A customer can withdraw and deposit money using his smart card at the terminal of the BC. Every time a transaction is made, a printout is provided to the customer. Transactions cannot be undertaken unless a biometric verification of the card holder is done.
- Banking transactions are freed from branch timings and can be done whenever the BC is available with a capture device.

- If a BC does not have requisite money to pay the customer, a printout will be given to him stating that no cash is available at the customer's end. This information will be passed on to the bank through the central processor to facilitate immediate replenishment of cash. Incidentally, this also acts as a check to prevent BCs from denying service to customers.
- The terminal with the BC is operated with a rechargeable battery and is not dependant on steady supply of electricity.
- An added facility that can be enabled is that the customer can use the smart card as a debit card at merchant establishments.
- A CPU integrates village level terminals and identified merchant establishments with the bank.
- The technology seamlessly integrates into core banking solutions of the banks concerned and supports various types of deposits and loan accounts.
- As each hand held model can be used to service 500 to 1000 accounts by a BC, the cost of the device when seen in the context of its servicing capabilities and range is very cost effective.

#### *Transaction Processing and Settlement (ALW and FINO)*

It is recommended that an IT-enabled financial inclusion model would have the following features in its transaction processing and settlement :

- Store and forward mechanism used for uploading field transactions originating on handhelds.
- Agent / entity wise detailed transaction reports for all the transactions.
- Integration with core banking system and other third party systems through customized interfaces.
- Support for pushing back end updates to smart card such as interest run, charges, blocking of cards, etc.
- Support for remote parameter configuration such as maximum daily withdrawal amount, maximum cumulative account balance, etc.
- Settlement among multiple banks using the same infrastructure should be supported.

The technology based remote banking models can be used for outreach for the following purposes :

- Microsavings ( no-frills pre-paid account),
- Disbursal of Government benefits,
- Microcredit (GCC),
- Farmers credit and benefits,
- Micro-insurance,
- Cash withdrawals,
- Wage disbursements for NREGA,
- Pensions,
- Cashless payments to merchants,
- SHG saving-cum-credit accounts,
- Passbook,
- Equated monthly instalments (EMI),
- Utility payments.

The Committee recommends the transactions be secured appropriately to ensure secrecy and non-repudiation. While the Committee feels that bio-metric cards are appropriate for uniquely identifying individuals, they have noted that certain issues such as the card holders by virtue of their professions which may involve hard work with hands, may not have clear finger prints. It may, therefore, be necessary to have a PIN also associated with the card which while enabling use where biometric fails, may additionally enable the use of the card at the existing infrastructure like ATMs and POS terminals. The BCs may require an overriding power to enable a transaction based on photo identification. Such transactions may have to be captured as incidents requiring addition KYC for such transacting persons.

The RBI Advisory Group in its first meeting has strongly recommended that all the models should follow the best international standards in use for such systems, and they should be such as to permit inter-operability and work on open platforms, and enable a common settlement. The smart cards should adhere to EMV and CEPS standards and should have PKI. The inter-operability was recommended both at the front and the back ends. This would enable the possibility of a card to carry out nation-wide transfer of funds and also creation of a nation-wide information system which has useful policy implications.

#### *Cost Considerations*

IT-enabled financial inclusion models can be acquired at relatively low costs. A smart card is estimated to cost around Rs. 100 and a terminal with the BC between Rs. 10,000 to Rs. 20,000 depending upon its features and accessories like printers. The cost of the central processor would depend upon the configuration which in turn is dependant upon the number of accounts, types of accounts, number of transactions, type of reports etc. A processor costing around Rs.35 lakhs (present day pricing) would have the capability of serving multiple districts. As compared to the cost of establishing and operating a physical bank branch in a rural area, the system would be extremely cost effective. It will extend outreach at the doorstep of the farmers, handle even small size transactions, is capable of being operated by persons having local presence and feel, have necessary checks and balances to avoid frauds, protect the interest of depositors and help expand the volume of business for the bank.

## ANNEXURE IX

### Initiatives on Banking Facilities through the Use of Smart Card Facility

#### State Bank of India Tiny Initiative

The SBI has launched a project in Nov-Dec 2006 on making available banking facilities to the presently excluded sections of population of Aizwal, Pithoragarh and Medak in the States of Mizoram, Uttarakhand and Andhra Pradesh respectively. SBI has appointed a NGO named Zero Mass as its business correspondent (BC). Zero Mass initially started with coverage of 9 villages and registered 2,400 customers in the first phase. Each village is served through a SBI-Tiny CSP, who is a BC. The CSP is the face of BC in the village, a banking outpost delivering banking services to the customers.

The process of enrollment of beneficiaries for issue of smart cards is as under :

- SBI-Tiny enrolment forms are distributed by the CSPs,
- Prospective customers come to the CSP with filled forms,
- CSP collects the forms, enters the data in a personal computer, captures one photo and two fingerprints of each customer,
- Collected forms are sent to nearest SBI branch for approval,
- Enrolment data are sent to card production centre,
- Cards printed for all customers are approved by SBI branch,
- Printed cards are dispatched to the CSP, and
- CSP hands over card to the customer after verifying the fingerprint and photo.

The registered customers are issued a card with 10 years validity. The cards are built on new generation NFC mobile phone technology and store extensive identity profile including bio-metric finger print data, multiple accounts, last known balance and history of recent transactions.

The BC carries portable equipment - NFC mobile, fingerprint unit and transactions printer - which operate on portable battery with a stand-by time of up to 10 days. Customer identification takes place by matching of photo and fingerprint. The fingerprint unit matches the fingerprint on the card with client fingerprint. Once authenticated, the chip embedded in the card gets charged. When the card with charged chip is brought close to the mobile phone, message templates for deposit, withdrawal and balance enquiry are generated in the mobile. The BC needs to select the relevant option and feed the amount of transaction through the mobile keypads and send the message to the backend server. The server authenticates the message, processes the transaction and sends an update back to the mobile, which in turn writes back to the card. When the card is brought close to the printer, a transaction report is printed in triplicate. The BC keeps working capital in an aggregator account in a SBI core banking branch and carries cash physically for making payments to customers.

The available services include savings product (SBI-Tiny no-frills pre-paid account), microcredit, micro-insurance, cash withdrawal and can be used for routing Government payments.

SBI is targeting to cover 100,000 villages and issue one crore SBI Tiny smart cards linked to their existing network of semi-urban and rural branches within a period of 12 to 18 months.

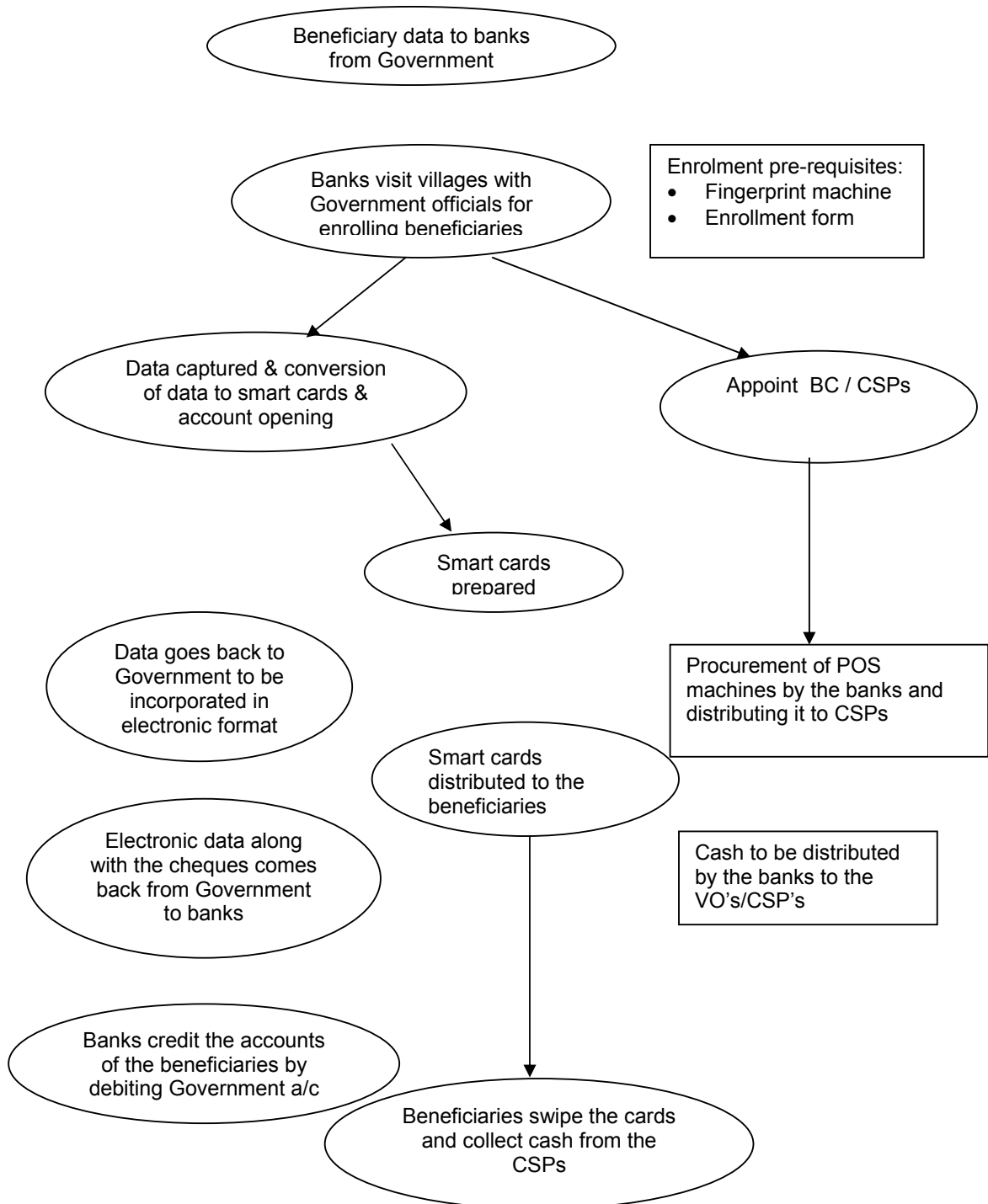
**Government of Andhra Pradesh (GoAP) Project on Social Security Payments through Smart Cards**

The GoAP has successfully launched a pilot project on routing social security payments to widows, handicapped, old and eligible weavers through the use of smart cards and BCs. The pilot involves six banks - SBI, Union Bank of India, UTI Bank, State Bank of Hyderabad, Andhra Bank and Andhra Pradesh Grameen Vikas Bank. The first phase of the pilot was successfully launched on April 30, 2007, wherein three banks - SBI, Union Bank of India and UTI Bank disbursed social security payments to 127 beneficiaries in 3 villages through intermediaries. Payments were made to more than 2000 beneficiaries of these villages in this stage during the first week of May 2007. By the first week of June, 2007 nearly 10,000 beneficiaries would be covered. With the inclusion of Andhra Pradesh Rural Employment Guarantee Scheme, the fully scaled up project is expected to cover 5 million beneficiaries. In the discussions, the Government has mentioned that over a period of time, almost all the Government payments can be routed through this mechanism so that the benefits reach the people at their doorstep.

The technology adopted for the project is similar to the one adopted by SBI-Tiny project discussed above. The cards store six fingerprints as against two fingerprints in the case of SBI Tiny project. The transaction model is also similar except that the GoAP issues the beneficiary data to the banks, who enroll them for issue of smart cards. The GoAP also transfers the money to banks for making payments. The CSPs have been selected from the existing VOs. A diagrammatic illustration of the transaction model is enclosed below.

The project is the first experiment in routing Government payments through use of intermediaries and smart card technology. Its successful launch reflects the potential of the model in routing other Government payments through the use of such technology. The decision of the Andhra Pradesh Government to meet a substantial portion of the card and device cost has helped nurture the pilot project.

## GoAP Project Structure





## **Key Learnings from the Two Initiatives**

The poor people are prompt in accepting technology that delivers value and convenience to them. In both the projects, the clients have accepted the technology.

The banks can improve their coverage comprehensively by adopting technology and intermediaries. The banks participating in the pilot projects have extended operations to areas which were hitherto uncovered.

While the initial cost of acquiring small ticket financial inclusion accounts is seen to be high in view of their low returns, the cost of transaction is very low when compared to the traditional banking methods. Thus, this model would gain acceptance when more products of the banks are routed through them.

Banks would need to deploy substantial resources for enrollment process and making of smart cards during the initial stage. There would also be need for training of beneficiaries and CSPs. Banks would need support from the Financial Inclusion Fund and the Financial Inclusion Technology Fund to part fund the exercise. BC capacity building is the biggest challenge in financial inclusion as the potential of technology in this area is already proven.

By engaging Government machinery and routing Government payment, the banks can generate additional resources to fund the exercise. Also, it would add to the credibility of the process. Further, micro-insurance remains a potential money spinner. Banks can also think of shifting several products like crop loans, small vehicle loans, artisan loans etc., on to the smart cards.

There are presently several technology providers active in this domain, however, only two are widely accepted, each backed by one major bank in the private and public sector. Major banking players are aligning with either of the two. More technology providers are likely to come forward as the technology adoption picks up.

There would be a need for a minimum basic level of uniformity in capturing, storage and transmittal of biometric data. The RBI has constituted a group to look into standards for storage of raw image. The draft report of the group is being discussed and recommendations emerging within the group are to align the standards to the ISO-IEC (International Organisation for Standardisation - International Electrotechnical Committee) international standards. This aspect would be necessary to ensure that key bio-metric data can be used for other applications.

The responsibility for customer service and control of operations have to be exercised by banks, who are supposed to conduct thorough due diligence before appointing intermediaries. However, during the initial stage, inter agency coordination among banks, technology providers, business intermediaries and Government agencies would require extensive formalization and periodic reviews.

In a few cases, the banks had not worked out the detailed accounting procedure to be adopted for employing BCs especially while routing Government payments. Similarly, arrangement of cash for the BCs needs to be planned in advance.

Supply of spares, consumables and maintenance services would have to be meticulously planned by technology providers, BCs and banks. Here too, with time and greater volumes independent suppliers may come up.

In the case of the GoAP project, a few ineligible beneficiaries were identified. Thus, technology ensures that only the intended beneficiaries receive the Government benefits.

The use of intermediaries by banks may be opposed by unions and banks may have to enter into a dialogue with their respective unions for generating acceptance to the idea.

## ANNEXURE X

### International Experiences on Financial Inclusion Country Wise Inputs

#### Developed Countries

##### *United Kingdom*

In UK, financial exclusion is concentrated in certain geographical areas. According to HM Treasury estimate, the country has a relatively high number of households and individuals of 12% without bank accounts. As part of the 2004 spending review, the UK Government has set out its commitment to tackle financial exclusion and undertook specific proposals in three key priority areas such as access to banking services, access to affordable credit and access to money advice. A “Financial Inclusion Fund” of £ 120 million has been set up over three years to support initiatives to tackle financial exclusion, the progress of which will be monitored by a Financial Inclusion Task Force.

The Government has recognized that the most financially excluded would benefit from face to face money advice and has set up a fund of £ 45 million for the same. This will be administered by the Department of Trade and Industry. The Government is seeking to work with potential providers to develop proposals for delivering a significant increase in the capacity of free face-to-face money advice targeted in areas of high financial exclusion. The face-to-face money advice is mainly provided by citizens advice bureaus, community development groups etc.

The major contribution from the banking sector in UK is the introduction of a BBA with no frills and 24 hours basic banking services. POCA was also introduced with huge financial contribution from the banks for those who cannot have the BBA. The concept of Savings Gateway has been piloted aiming to encourage banking habits by means of Government funded match of all money saved, up to a certain limit. This offers those on low-income employment £ 1 from the state for every £ 1 they invest, up to a maximum of £ 25 per month. The credit unions were offered more functional flexibility for providing affordable credit simultaneously tightening the legal provision ensuring safety for investors. A platform for collaboration between local Governments and financial institutions has also been set up, in order to ensure that, everyone has access to financial services. Banks have also been taking active participation by engaging even managers in delivering money advice. Many banks like Barclays and HSBC have supported access to money advice through contributions to the Money Advice Trust. Banks have placed their staff in community development organisations also and encouraged staff volunteering programmes in social development. Few banks like Royal Bank of Scotland Group have set up their own fund for promoting financial inclusion. In addition the Community Finance Learning Initiatives were also introduced with a view to promoting basic financial literacy among housing association tenants.

The banking sector in UK has played a proactive role in promoting financial inclusion by making partnerships with projects and organisations fighting financial exclusion like children fund projects, housing association projects, financial education trusts and also with charity organisations like the Passage. The Banks were cautious enough to promote also awareness, provide information and impart training to their employees.

### *United States of America*

In USA, between 9.5 and 20% of households lack a bank account. Around 22% of low income families (over 8.4 million families earning under US\$ 25,000 per year) do not have either a current or savings account.

In USA, the CRA has been enacted to contribute to financial inclusion and it prohibits discrimination by banks against families with low and moderate incomes. All the licensed and chartered banks have been mandated to fulfill social obligations by enabling access to banking services to excluded sections. The Act imposes an affirmative and continuing responsibility on banks to cater to the banking facilities and credit needs of the communities in which they are chartered to do business.

The Home Mortgage Disclosure Act requires banks to disclose details of people and groups to whom they are currently offering services. The banks are also made to adhere to a greater transparency in account maintenance through a written disclosure of the features of the account prior to opening of the account itself.

The Departments of Banking in some States like New York made it an obligation for the banking sector to provide access to banking facilities to all citizens with a view to extend low cost banking services to customers. It is mandatory that banks shall offer BBAs in the case of depositors and Basic Share Draft Accounts (BSA) in the case of borrowers with minimum costs.

Numerous studies conducted by the Federal Reserve Bank and Harvard University demonstrated that CRA lending is a win-win proposition and profitable to banks. In addition, the legislation had the effect of changing other aspects of commercial behaviour. For example, banks often give money to community development funds in order to ensure positive scoring when lending is disclosed under the above legislative instruments.

### *Canada*

During 2003, legislation entitled “Access to Basic Banking Services Regulations” was introduced in the country to ensure that all Canadians could obtain personal bank accounts without difficulty. Financial institutions are required to open personal bank accounts as well as cash most Government cheques at no charge (even to non-customers) for any individual that meets basic requirements. The Federal Government also introduced legislation requiring banks to offer a standard low cost bank account with a basket of services. Memoranda of Understanding were signed between the Federal Government and eight financial institutions to ensure that all Canadians have access to affordable banking services.

### *Germany*

In Germany, during 1995, the banking industry endorsed a joint recommendation entitled “Current Accounts for Everyone”, undertaking to provide current accounts on demand. There have been a further two reports (1996 and 2000) on the effects of this voluntary undertaking. The results have so far been positive and so the Federal Government has chosen not to legislate in this area at this time.

### *France*

The 1984 Banking Act made access to a bank account a legal right in France. Any person refused a bank account can apply to the Bank of France, which will nominate an institution to provide the bank account. In addition, in 1992, French banks signed a

charter committing them to opening a bank account at an affordable cost with related payment facilities.

### **Developing / Less Developed Countries**

#### *Africa*

In 2004, the UNDP and United Nations Capital Development Fund (UNCDF) joined efforts to build a regional programme - BISFA - for financial inclusion in Africa. BISFA's goal is to contribute to the achievement of the Millennium Development Goals (MDGs) particularly the specific goal of cutting poverty in half by 2015, by increasing sustainable access to financial services in Sub-Saharan Africa for poor and low income people and for micro and small enterprises. The programme follows a three-step process of financial sector development approach which includes (i) conducting a financial sector assessment in each country, (ii) working through an open, participatory process with multiple stakeholders to develop policy, strategy and a national action plan for building an inclusive financial sector and (iii) assisting policy makers and a broad range of financial institutions, development agencies, the private sector, and other financial market participants to implement this action plan.

In South Africa, "MZANSI" a low cost national bank account was launched in October 2004 extending banking services to low income market segments and especially to that segment for which the banking services were elusive till recently. MZANSI is a card based, saving account with easy availability at accessible outlets like merchant point-of-sale and post offices. This initiative has put full service banking within at most 15 kilometers of all citizens. Even an ATM is within 10 kilometer of their homes. By the end of August 2005, more than 1.5 million MZANSI accounts were opened, in which majority were of such persons who had never availed banking facilities before.

#### *Bolivia*

Bolivia has financial deepening of around 60%, based on financial sector assets of US\$ 4.84 bn, in 2004. The overall credit portfolio was around US\$ 3.3 million. The country has a network of 503 branches of regulated and unregulated entities serving a population of six million, which means one branch for every 12,000 population.

The institutions include 5 Private Financial Funds (PFF) that specialize in lending to small and micro-enterprises, 2 specialized microfinance banks, 14 NGOs, and several unregulated credit unions. The commercial banks in Bolivia do not offer microfinance. Regulated intermediaries that specialize in microfinance represent 12% of the total loan portfolio of the financial system, and 38% of the total clients. Unregulated intermediaries represent only 3% of the total loan portfolio, but 30% of the clients. Commercial banks with 70% of the portfolio reach out to only 20% of the total client base.

The microfinance industry in Bolivia became a success on its own before the public sector took note of it. The regulated MFIs in Bolivia have grown while the unregulated have been starved of lending funds. Regulated MFIs grew out of very high quality non-profit lenders (NGOs) which were professionally managed, and had high profitability. Special non-bank licenses for finance companies were issued in 1992. PRODEM, the largest NGO became a licensed commercial bank in 1992. The microfinance portfolio grew by around 20 times in the 1990s. Starting 1999, the industry grew fast, and over-indebtedness of the previous years coincided with an

overall macro-economic crisis. Lately, however, the sector has seen consolidation and growth and volume of operations, and loan sizes are all on stable growth paths.

The Bolivian bank supervisor has created a structure for microfinance with virtually no interference from political leaders. There has been lesser success in improving the legal environment that affects microfinance negatively. A level playing field, however, has been created for commercial banks and other entities doing microfinance from a compliance and regulatory perspective.

The Bolivian example shows a patient market development strategy implemented by a highly capable supervisory agency. The supervisor allowed experimentation, collected and shared timely market information, and engaged the sector in ongoing dialogue while elaborating its technocratic regulatory approach to microfinance. High standards were set for the FFP niche, and gradually MFIs were brought into the regulated sector. Subsidies and promotional schemes were avoided and the range of financial services offered was broadened by the regulator.

### *Mexico*

About 6% of the rural population and 15-20% of the urban population have access to financial services. Of the nearly 11 million poor households, 4 million had accounts with people's savings and credit institutions and 3 million with BANSEFI branches.

There are around 500 institutions which provide savings and credit services to low and medium income families. The commercial banks which dominate the finance sector with 42% of the total assets of the financial system, do not lend to the poor. Banca de Desarrollo (development bank), Nacional Financiera, and BANSEFI own 11% of the assets of the financial system. Pension funds have 12%, investment societies 11%, and NBFCs have 4% of the total assets. The BANSEFI network has promoted supporting entities for the sector : a second tier central bank, an IT platform, L@Red de la Gente and a pension fund. It is planned to transfer the ownership of these to the sector over time.

The sector has grown by 20% annually, since the new laws were approved. The Mexican example shows consolidation and institutional transformation at several levels. The apex bank, Banrural was converted into Financiera Rural in 2003, which has tailored credit products and sector specific programs. In 2001 a development bank, BANSEFI was established as the State vehicle to promote savings, develop "central" entities and to support the sector. A savings based, demand driven, sustainable microfinance program for the poor, PATMIR was introduced. This involved expert foreign consultants for the technical assistance.

In 2001, the Government designed a policy in order to transform the extant semi-informal financial sector into an opportunity for deepening the financial system. This policy includes two pillars that will have to converge in time, creating a legal and regulatory framework in line with best practices, and strengthening institutional capacity of the sector. The Ley de Ahorro Credito Popular is a functional law : it regulates savings and credit activities and not institutions. Only two legal forms can be licensed to operate under the law, the Savings and Credit Cooperative Organisations (SACCOs) and Popular Finance Partnerships (PFPs).

In Mexico, financial services are being provided in a modern, reliable and cost-efficient manner, and the capacity for doing so has been built centrally and top down. The Mexican rural financial system now has a regulatory framework according to the best international standards, however, supervision is delegated to the autonomous

supervisory committees of the federations of SACCOs and PFPs. Savings has much more precedence over credit, and a host of other financial services were also introduced. The successful program PATMIR reaching out to less developed areas and lower income groups by creating long run access infrastructure has many lessons to offer for financial services in poorer areas.

### *Indonesia*

As of 2001, the financial deepening in Indonesia was 101%. In the same year, the number of MFIs in Indonesia was around 53,000, seven times the number of branches of commercial banks. There are 44 million depositors, 30 million borrowers, and US\$ 141 billion in assets.

There are several types of microfinance institutions in Indonesia such as commercial banks including Bank Rakyat Indonesia (BRI) owned by Government with its large “Unit Desa” network operating at sub-district level, the mostly privately owned rural BPRs (Bank Perkreditan Rakyat or People’s Credit Banks), the BKDs (Badan Kredit Desa or Village Credit Organisations owned by Village Governments), the LDKPs (Lembaga Dana dan Kredit Pedesaan or Rural Fund and Credit Institution which are non-bank MFIs mostly owned by Provincial Governments), and credit cooperatives. The regulated entities, BRI-Units and BPRs, cover the upper end of the micro-enterprise market. The average loan size of Unit Desa is around US\$ 75. The BKDs serve lower income clients with average loan amounts of about US\$ 53. There are some credit cooperatives, sponsored by the Government, which are in poor financial health. The commercial banks have not made a significant dent in the microfinance market in Indonesia, even though some of them are replicating the BRI Unit Desa system; loan sizes are relatively high at around US\$983.

The rural financial institutions are largely owned by Government at village and provincial levels. In 1983, in the wake of new financial reforms undertaken by the Indonesian Government, the BRI transformed its Unit Desa network from loss-making channeling agents for the Government subsidised credit program for rice cultivation (BIMAS) into commercial microfinance intermediaries. This turnaround into profitable entities is at the heart of the Indonesian model. It was done at an incredible pace, and in a sustainable manner. Especially remarkable was also that the Units increased their savings at a rapid rate during the turnaround period. Besides these entities, there has been focus on the commercial bank - BPR linkage, with the former lending to the latter for onlending to small and micro-enterprises. There has also been a conscious strategy of converting LDKPs and BKDs into BPRs.

Deregulation of the banking sector started in 1983 and included removal of ceiling on credit expansion and allowing banks to set their interest rates. The revival of Unit Desas was done with discontinuing the subsidized rice credit program, introducing performance based incentives and retraining of staff at all levels. The diverse service providers in Indonesia largely had weak governance and oversized systems. Since the 1990s, Indonesia has been addressing these by harmonizing standards (using the BPR model), and delegating supervision while building mainline supervision capacity in the BI. The role of the BI itself was redefined in 1999 with the BI Act.

Much of the success in Indonesia has been due to the BRI system. The system is a classical case of turnaround from Government owned subsidized credit system to a microfinance system based on viable commercial principles with steady consolidation. The Unit Desas have achieved profitability with high outreach to the

poor. Financial liberalization and a flexible approach to prudential governance of microfinance operations have been the planks for transforming the sector in Indonesia.

### *Bangladesh*

Bangladeshi MFIs lead both in regional and global outreach. The number of customers served per institution is above or close to 4 million customers each for the three largest MFIs, Grameen Bank, ASA (Association for Social Development) and BRAC (Bangladesh Rural Advancement Committee).

Amongst the institutions involved in microfinance the Grameen Bank is the only formal financial institution in Bangladesh, all others are registered as NGOs. BRAC is a finance plus NGO with added social programs. Proshika matches members' savings and credit with marketing and technical assistance. The Credit and Development Forum (CDF) estimates that around 1,500 MFIs are operating in Bangladesh. The majority of MFIs are small and the bulk of the access to microfinance services is provided by the four large MFIs. The Microfinance Research and Reference Unit, (MRRU) of the Bangladesh Bank had data for December 2005, for 469 NGO-MFIs, with over 7,700 branches, covering around 14 million customers. Palli Karma Sahayak Foundation (PKSF), is an apex microcredit funding agency established in 1990. PKSF provides wholesale funds to its partner organisations for onlending to the poor and also engages in capacity building initiatives of these institutions.

Grameen Bank, which was started as an experiment in 1976 was converted into a Government regulated bank in 1984 by an ordinance of the Government. NGOs grew in number and scale and by the 1990s BRAC, ASA, Proshika and Grameen Bank dominated the development discourse in the country. By the mid-1990s, the minimalist, microcredit-only approach gave way to greater focus on a wider range of financial services. From vanilla credit products, they moved towards product differentiation both by end use and target segments. The institutions and their structures remained the same, and operations kept expanding at a very fast pace. For example Grameen Bank and ASA have added around 1.3 million customers each in 2005. The system is largely driven by savings and soft funds, and the use of commercial funds has increased to around 20% of the total loan portfolio of Bangladeshi MFIs as recently as 2005.

The sector has grown on its own, and in the absence of regulation. After the phenomenal success of the Grameen Bank, it was brought under Government regulation. NGO-MFIs are not regulated, supervised or monitored by any single authority in Bangladesh. At best, they are under the system of offsite supervision by the authorities that provide them registration as NGOs. The different stakeholders involved in the sector are increasingly focused on the need to develop a supportive regulatory framework. A high power national Steering Committee under the leadership of the Governor of the Bangladesh Bank is responsible for formulating a uniform guideline and the legal framework of a regulatory body. This Committee has submitted a draft law to the Government, which should lead to the creation of a formal financial system in near future.

The peer-lending system, compulsory savings, administrative structure, and business approach are suited to the culture of rural Bangladesh. Successful replications must seek to modify Grameen's systems and practices to suit their own socio-political environments, and not merely transplant the exact institutional structure and policies



of Grameen Bank. The high efficiency levels of MFIs (cost of US\$ 9 per borrower) are also very context and business model specific, and need not necessarily be a target in dissimilar situations.

## **Annexure XI**

### **Facilitating Financial Inclusion: Initiatives by Reserve Bank of India**

In the Annual Policy Statement of the Reserve Bank for 2005-06 it was observed as under:

- RBI will implement policies to encourage banks which provide extensive services while disincentivising those which are not responsive to the banking needs of the community, including the underprivileged.
- The nature, scope and cost of services will be monitored to assess whether there is any denial, implicit or explicit, of basic banking services to the common person.
- Banks are urged to review their existing practices to align them with the objective of financial inclusion.

**In keeping with these objectives, the Reserve Bank has formulated its broad approach to financial inclusion as indicated below.**

- **Approach to Financial Inclusion**

The Reserve Bank's broad approach to Financial Inclusion is as under:

- Aim at 'connecting' people with the banking system and not just credit dispensation.
- Aim at giving people access to the payments system.
- Use multiple channels such as civil service organizations, NGOs, post offices, farmers' clubs, panchayats, MFIs, etc. as Business Facilitators to expand the outreach of banks.
- Adopt a decentralized approach, which is state and region specific and has close involvement and cooperation between the respective State Governments and banks.
- Make use of ICT using bio-metric smart cards and mobile hand held electronic devices for receipts and disbursement of cash by agents of banks, such as business facilitators/correspondents.
- Portray financial inclusion as a viable business model and opportunity.
- Aim at continuous evaluation, sharing of experiences, feedback and improvement.

**In consonance with the above broad approach, the Reserve Bank has undertaken a number of measures for attracting the financially excluded population into the structured financial system.**

#### **No-Frills Accounts and General Purpose Credit Cards**

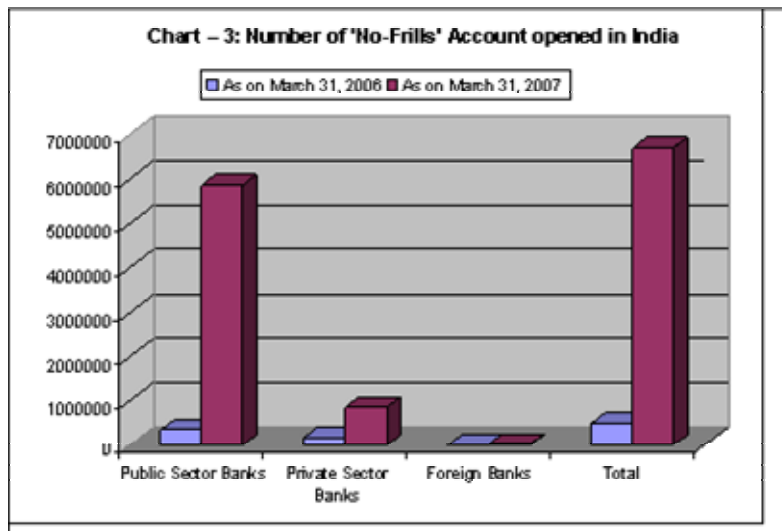
- (i) In November 2005, banks were advised to make available a basic banking 'no-frills' account with low or nil minimum balances as well as charges to expand the outreach of such accounts to vast sections of the population.
- (ii) Banks are required to make available all printed material used by retail customers in the concerned regional language.
- (iii) In order to ensure that persons belonging to low income group, both in urban and rural areas do not encounter difficulties in opening bank

accounts, the know your customer (KYC) procedure for opening accounts has been simplified for those accounts with balances not exceeding Rs 50,000/- and credits thereto not exceeding Rs.1,00,000/- in a year. The simplified procedure allows introduction by a customer on whom full KYC drill has been followed

(iv) Banks have been asked to consider introduction of a General Purpose Credit Card (GCC) facility up to Rs. 25,000/- at their rural and semi-urban branches. The credit facility is in the nature of revolving credit entitling the holder to withdraw up to the limit sanctioned. Based on assessment of household cash flows, the limits are sanctioned without insistence on security or purpose. Interest rate on the facility is completely deregulated. Fifty per cent of the GCC loans can be treated as part of the banks' priority sector lending.

- **Adoption of Districts for 100% Financial Inclusion**

- (i) A decentralized strategy has been adopted for ensuring financial inclusion. The State Level Bankers Committee (SLBC) identifies one district for 100 % financial inclusion. Surveys are then conducted using various databases such as electoral rolls, public distribution system, or other household data, to identify households without bank account. Responsibility is given to the banks in the area for ensuring that all those who wanted to have a bank account are provided with one by allocating the villages among the different banks. Bank staff or their agents who are usually local NGOs or village volunteers contact the households at their doorstep.
- (ii) Recognizing the need for providing social security to vulnerable groups, in some cases banks have provided, in association with insurance companies, innovative insurance policies at affordable cost, covering life disability and health cover. SHGs and MFIs are also being used extensively for financial inclusion on the credit side.
- (iii) So far, SLBCs have reported having achieved 100 per cent financial inclusion in the Union Territory of Puducherry, Himachal Pradesh and in some districts of Haryana, Karnataka, Kerala, Punjab and Rajasthan. Reserve Bank advised its Regional Directors to undertake an evaluation of the progress made in these districts by an independent external agency to draw lessons for further action in this regard. The outcome of the efforts made is reflected in the increase of 6 million new 'no frills' bank accounts opened between March 2006 and 2007. The progress made in opening of 'No-Frills Accounts' is given in the chart hereunder.



- (iv) In certain less developed States, such as in North Eastern Region, Bihar, Chhatisgarh and Uttarakhand, Working Groups headed by the representatives of the Reserve Bank have made specific recommendations for financial inclusion, strengthening financial institutions and improving currency and payments systems. The concerned regional offices of the Reserve Bank are monitoring the implementation of these recommendations.

- **Use of Intermediaries as Agents in Microfinance**

- (i) In January 2006, the Reserve Bank permitted banks to utilise the services of non-governmental organizations (NGOs/SHGs), micro-finance institutions (other than Non-Banking Financial Companies) and other civil society organisations as intermediaries in providing financial and banking services through the use of business facilitator and business correspondent (BC) models. The BC model allows banks to do 'cash in - cash out' transactions at a location much closer to the rural population, thus addressing the last mile problem.
- (ii) Banks are also entering into agreements with Indian Postal Authorities for using the enormous network of post offices as business correspondents, thereby increasing their outreach and leveraging on the postman's intimate knowledge of the local population and trust reposed in him.

- **Use of ICT Solutions for Enhancing Outreach of Banks**

- (i) The Reserve Bank has been encouraging the use of ICT solutions by banks for enhancing their outreach with the help of their Business Correspondents (BCs). The BCs carry hand-held devices, which are essentially smart card readers. The information captured is transmitted to a central server where the accounts are maintained. These devices are used for making payments to rural customers and receiving cash from them at their doorsteps.
- (ii) Mobile phones have also been developed to serve as card readers. Account holders are issued smart cards, which have their photographs and finger impressions. Certain banks have been using this technology in

Andhra Pradesh, Karnataka and Maharashtra. Pilot studies have also been carried out in Mizoram and Uttarakhand.

- **Financial Literacy and Credit Counselling**

- (i) Recognising that lack of awareness is a major factor for financial exclusion Reserve Bank is taking a number of measures for increasing financial literacy and credit counseling. A multilingual website in 13 Indian languages on all matters concerning banking and the common person has been launched by the Reserve Bank on 18 June 2007. Comic type books introducing banking to schoolchildren have already been put on the website. Similar books will be prepared for different target groups such as rural households, urban poor, defence personnel, women and small entrepreneurs. Financial literacy programs are being launched in each State with the active involvement of the State government and the SLBC.
- (ii) Each SLBC convenor has been asked to set up a credit-counselling centre in one district as a pilot and extend it to all other districts in due course.
- (iii) A Centre for Financial Education & Excellence is proposed to be set up in RBI's College of Agricultural Banking at Pune

*continued*

## *Success Stories*

### **Pragathi Gramin Bank, Bellary, Karnataka (Sponsor: Canara Bank)**

- 628 villages covered with 100 percent financial inclusion
- 8,26,173 families of SHG members financially included
- Two out of seven districts served by the bank have 100 percent inclusion
- The RRB plans to cover one million families by March 2008

### **Indian Bank in Asia's Largest Slum, Dharavi, Mumbai - Application of Core Banking Solution**

Dharavi, Asia's largest slum is inhabited by lakhs of migrant labour from Tamilnadu who do not have bank accounts. After the KYC norms were rationalized to enable opening of 'No Frills' Accounts, Indian Bank has opened a Core Banking branch in Dharavi Slums. The KYC of migrant labour can also be done at the home district in Tamilnadu. As the bank has branches at the places from where the migrant labour has come, remittances to and fro have become very easy as they are just transfers between the accounts of the bank. Thus, the urban financially excluded have been given banking access and now it is found that many of the account holders who were otherwise spending on consumption have started saving. Thus, the core banking solution in banks can be a powerful remittance tool for the migrant labour.

### Pilot Project in Andhra Pradesh

Andhra Pradesh Government has embarked on a pilot project with six banks, viz., SBI, SBH, Andhra Bank, Union Bank, UTI Bank and AP Grameena Vikas Bank, to make payments of Social Security Pensions and AP Rural Employment Guarantee Scheme benefits to 50,000 beneficiaries in six Mandals of Warangal district through the use of business correspondents and contact less smart card/mobile technology. The state proposes to scale up the project to cover the nearly five million beneficiaries of the entire state in due course. The state has signed an MOU with banks and Institute for Development and Research in Banking Technology (IDRBT) for the purpose. The state is also meeting the major portion of cost of the smart cards and also of the other devices used in the

### **Union Bank of India- Village Knowledge Centres**

Keeping in view the urgent requirement to educate the rural inhabitants and farmers in particular, for updating them with the latest technological developments, a pioneering effort has been initiated by Union Bank of India by establishing Village Knowledge Centres (VKCs) at strategic rural locations to ensure following aspects

- To impart information and guidance on latest Agricultural skills and developments
- To offer updates on climatic conditions, current market prices of agricultural produce
- Implementation of programmes such as formation of Self Help Groups (SHGs) and Farmers clubs, etc.
- To make command area villages as "100% banked villages".
- To guide farmers about our Bank's various loan products/schemes and guidance for availing loan from bank.

So far bank has established 198 VKCs all over the country and these centres have been provided with basic infrastructure like Internet connection and updated libraries with periodicals on Agriculture and allied activities and rural marketing subjects.

### **Bank of India's 'Abhay' – Credit Counselling Centre**

The Credit Counseling services were started under the aegis of the Trust "ABHAY " which was launched at the hands of His Excellency President of India Dr. A.P.J. Abdul Kalam at New Delhi on 25th August, 2006. The first center was inaugurated at Mumbai by Dr. Y.V.Reddy, Governor, Reserve Bank of India on 7th September,2006 which was followed by Centres at Wardha in Nagpur and Chennai.

The following are the main objectives of the Trust.

- Advising on gaining access to structured financial system including banking
- Creating awareness among the public about financial management
- Counseling people who are struggling to meet the repayment obligations and helping debt resolution
- Helping in rehabilitation of borrowers in distress