PROMOTING E-GOVERNANCE IN PANCHAYATS

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ABSTRACT

The Panchayats, the rural local governments of India, serve more than two-thirds of the population of the country. Improving management functions of those bodies for better delivery of services is very important for the well-being of the rural people. One important way of improving functioning of those bodies is through appropriate applications of e-Governance measures, which is one of the Mission Mode Projects conceived by the Government of India in the year 2006. An initiative was launched in the year 2002-03 by the Panchayat & Rural Development Department, Government of West Bengal for adoption of various e-Governance measures. Continuous effort since then brought marked changes in the functioning of Panchayats of West Bengal by adopting various Information and Communication Technologies. Those include computerisation of accounts of all the three tiers of Panchayats as well as making those available in the public domain through website of the department; delivery of certain services like issuing Birth & Death certificates, Trade Licenses by the Gram Panchayats; management of Property Tax by the Gram Panchayats; management of National Social Assistance Programme; GIS based decision support system; e-Procurement by the Zilla Parishads and functioning of the Common Service Centres as conceived under the National e-Governance Plan in collaboration with the Panchayats. This paper is an empirical report of the progress made in respect of e-Governance in the Panchayats of West Bengal and it also discusses the problems and challenges faced and the intensive capacity building required for adoption of e-Governance by the Panchayats.

Introduction

The Constitution of India recognises the rural local bodies i.e., the Panchayati Raj Institutions (PRIs) as the third stratum of Government (GoI, 1993). However, functioning of those bodies depends much on enablement of those bodies through devolution of fund, function and functionaries by respective state governments as well as empowerment through building capacities of those bodies. Many of the national flagship programmes are being implemented by the PRIs or seek active participation of those bodies in implementation of those programmes. Efficient functioning of the PRIs is very crucial for implementation of different programmes of the government as well as delivery of civic

services to the citizen. All those require improving ability of decision making promptly and based on objective parameters; transparency of functioning and sharing information with the people for which there is growing demand because of the RTI Act. Thus, there is high stake in building capacities of the PRIs for improving governance of those bodies. However, several constraints are faced in that process. First of all, there is insufficiency of number of staff, of whom the quality does not often match their responsibilities because of local recruitment and other reasons. Secondly, those are new institutions in its current form in most of the states and there is yet to be established good administrative practices backed by appropriate rules, manuals etc. to guide functioning of those bodies. Thirdly, the elected functionaries of those bodies have much less experience and capacities of holding public office as compared to their counterparts in the higher levels of government. Also, such problem is much higher at the lowest tier, i.e., the Gram Panchayats, which is the most important tier of local government. At the same time, while a strong bureaucracy exists for the state government for guiding the elected representatives in conforming to rules and procedures, a weak bureaucracy that exists at most of the local bodies, particularly at the lower tier, does not have that advantage. All those require taking appropriate steps by the state governments in improving governance. One aspect of such improvement is adoption of Information and Communication Technology (ICT) based interventions, i.e., adoption of e-Governance measures for improving governance. In fact, the Government of India, in the year 2006, has planned to take up some Mission Mode Projects to be implemented by the Central or the State Governments for improving governance through applications of ICT of which e-Governance in the Gram Panchayat is one of the projects for improving

management functions and services delivered by those bodies (GoI 2006). However, in West Bengal a comprehensive effort was initiated as early as in the year 2002-03 for improving governance in all the three tiers of Panchayats through appropriate applications of the ICT. The paper briefly narrates the initiatives.

Good Governance to Precede E-Governance

The term e-Governance implies adoption of ICT in carrying out government functions such as delivery of services to the citizen, integration of stand alone services and compilation of various data across sectors and geographical areas, decision making in utilisation of resources, procurement for government, sharing of information from Government-to-Citizens (G2C), Government-to-Business (G2B), Government-to-Government (G2G), electronic documentation of records and back-end data processing for improving efficiency of governance. However, adoption of technology in streamlining the work for gaining efficiency is a mere tool and that may be applied only when the system of governance including various norms and procedures are well defined. Therefore, for any tier of government, be it PRIs or higher tiers, e-Governance can operate only over a sound system of governance and that must be developed properly through appropriate re-engineering of the processes involved in governance before introducing e-Governance. Also, for introducing e-Governance there is need for some basic infrastructure like availability of computer, internet connectivity and other related infrastructure, which could be a problem in the PRIs of many states. Thus, adoption of e-Governance, particularly in the Panchayats, becomes context-specific based on the system of rural local governance of the State. Discussion in this paper is based on the experiences of PRIs of West Bengal, where some efforts have been made successfully in introducing various e-Governance measures.

A Brief Outline of the Panchayati Raj Institutions (PRIs) in West Bengal

The three-tier PRIs, comprising the Zilla Parishad (ZP) at the district level, the Panchayat Samiti (PS) at the sub-district (Block) level and the Gram Panchayat (GP) at the level of cluster of villages, in its current form was introduced in the year 1978 by conducting direct election to all the three tiers. From then onwards there has been regular election every five years. Elections are held with candidates using their party symbols. The members of each tier, elected from the respective constituencies, elect their Chairpersons and other functionaries. There are ten different Standing Committees in ZP and PS to look after various subjects. The lowest tier, i.e., GP has only five Upa Samitis, functions of which are similar to those of the Standing Committees. There is representation of opposition members in all the Standing Committees/Upa Samitis. The PRIs of the State are deeply involved in various developmental works and the State has devolved fair amount of functions to those bodies, as compared to the national scenario. All the three tiers of Panchayats generally have own building and necessary physical infrastructure and have also own cadre of employees. The State has 18 ZPs, 333 PS (excluding the 8 PS of Darjeeling Hill areas where election has not been held for long) and 3351 GPs. The size of the GP is fairly large and the average population of the GP is around 20,000. The population of a PS on an average is around 200,000. Over the last three decades the PRIs of the State have grown to become formidable institutions of local governance delivering several services to the citizen. A series of reforms measures were initiated in the State of West Bengal from around the year 2002-03 for improving functioning of the Panchayats and adoption of e-Governance measures was also a part of the initiative.

Computerising PRI Accounting System and Other Functions

Financial management of the PRIs in the entire country is generally weak. The Eleventh Finance Commission emphasised on improving the accounting system of the Panchayats and also set apart ₹ 200 crore for creation of database relating to the finances of local bodies and ₹ 98.61 crore per annum for maintenance of accounts of village and intermediate level Panchayats. It was recommended that a database on the finances of the Panchayats (and Municipalities) should be developed at the district, state and central government levels and be easily accessible by computerising it and linking it through V-SAT (EFC Report, 2000). Subsequent Finance Commissions also emphasised on building database and maintenance of accounts of the Panchayats. Computerisation of accounts and other financial functions of the PRIs have the potential for improving functioning of those bodies tremendously. That also helps standardisation of reporting and analysis of financial performance of the PRIs. The task is quite difficult because of the complexity, vastness and inadequacy of human and physical resources, particularly at the lowest tier. However, keeping in mind the possible improvement of the financial management of the PRIs, an initiative was taken in West Bengal by the Panchayat & Rural Development Department (PRDD), as early as in 2002, to computerise the accounts, which has to be preceded by improving the accounting system through appropriate change of relevant rules. There are two separate rules in this regard, one for the accounts of the ZP and the PS and the other in respect of the GP. The maintenance of accounts of the ZP and the PS were governed by the West Bengal Zilla Parishads Act of 1963 and that for the GP was governed by the West Bengal (Gram Panchayat Miscellaneous Accounts and Audit) Rules, 1990. Those were replaced by new rules,

which itself was a major task. The new accounts rule for the ZP and the PS was introduced in the year 2003 but without taking into account the need for computerisation of accounts, which was in nascent stage when the Act was being drafted. Therefore, suitable amendments had to be made later. In respect of GP the rule had to be redrafted for many other reasons and the new rule, known as the West Bengal Panchayat (Gram Panchayat Accounts, Audit & Budget) Rules 2007 was introduced which became effective from 1.4.2008. The task of computerisation was taken up separately by developing two different software, one for the GP and the other for the ZP and the PS. Preparation of the software proceeded based on the existing rules keeping in mind the changes which were to be incorporated in the new rules. Provision of hardware and various capacity building measures, in absence of any budgetary support, were made from various sources. The same started with a small grant of ₹ 14.4 lakh only received by the PRDD from the Ministry of Rural Development (MoRD) on 23.04.2004 (before creation of the Ministry of Panchayati Raj). Another grant was received from the UNDP through the National Institute of Smart Governance, Hyderabad for implementation of a Pilot Project (known as Decentralised Rural Information System & Technology Initiative or DRISTI) in the year 2005-06. Under DRISTI accounting software were to be operationalised in 50 GPs and 20 PSs respectively, of Burdwan district. Subsequently funds were utilised from the capacity building component of the BRGF; utilisation of own fund of PRIs and grants from Central Finance Commission by the respective Panchayat and the DFID assisted programme for Strengthening Rural Decentralisation. The progresses made in these respects are highlighted below.

Computerising Gram Panchayat Accounts : Before the PRDD decided to computerise GP accounts in the year 2003 the Bilkanda II GP of North 24 Parganas district started to develop software for computerising their accounts in the year 2002. The PRDD set up a team in the department to develop the software further to make the same more useful and robust. The software so developed was named the Gram Panchayat Management System (GPMS) and the same was put to use in that GP on 21.06.2003. The software was to carry out various functions of the GP including maintenance of accounts. Steps were taken for scaling up such computerisation across the State by taking up intensive capacity building measures and developing necessary infrastructure including providing hardware to the GPs. The processes followed, progress made and problems faced are briefly mentioned below :

First of all, a dedicated team was formed in the PRDD to work exclusively for e-Governance initiatives for the PRIs. The team had to interact regularly with the PRI policy Cell of the PRDD, which was responsible for making amendment of rule or passing any policy related circular and the entire process was reviewed almost every week at the level of the Secretary of the Department. The team focused on developing the software, which was on Visual Basic using Access database, and tested the same in selected GPs. The database was, however, changed to My SQL subsequently. The software had the feature of generating data automatically for reconciliation with banks. The accounting module of the software was designed to perform the following functions for which all receipt and payment data were to be entered only once:

Voucher Generation

Preparation of Cash Books

Cheque Issue Register

Subsidiary Cash Books

Ledgers

Cash Analysis

Receipts and Payments Accounts

Comparison of actual receipts / payments with the budget

Since internet connectivity was not available at that time in all the GPs, the software was not designed to be web-enabled. Therefore, every time there was change in the software as per operational requirement, the same had to be loaded again in every computer. It was realised that with change of requirement the software versions will also be required to change. In order to keep track of the software currently in use each version of the software was identified uniquely by a version number. So far, three major versions have been released. From 1.4.11 the version 3.6.0 was released to conform to the National Accounting Code, as desired by the Ministry of Panchayati Raj, GoI and the Comptroller and Auditor General of India. The current version in use has been introduced recently after migrating to entirely open source based system, is 3.7.7.

After installation of necessary hardware in the GP office (one computer exclusively for accounting purpose) and training of the employees, the software was installed by a team specially raised for this purpose. They were centrally selected, trained by the IT wing of the department and placed to work in the districts. In order that the PRIs have ownership of the task, the contractual remuneration of those people and their mobility was supported by the ZPs out of their fund (awards of the 12th FC or own fund). There are forty two such professionals (called Assistant Programme Support Managers) working in various districts who facilitated the computerisation process. Ninety four more IT professionals were outsourced from NIIT and the Tally Academy but were discontinued later. The next phase

after installation of the software is the customisation of the same for each GP. For that purpose the accounts book of the GP has to be updated and reconciled with the bank account as on a particular date so that the software could be customised by entering item-wise balance on that particular date (generally end of any month) in the software. Because of deficiency in writing of cashbook, the process got delayed in some GPs and there was discrepancy with bank accounts in some cases. However, the process resulted in cleaning the accounts of all the GPs, which were then computerised. This phase is followed by the stabilisation phase which requires close monitoring from district as well as the State as well as regular handholding. The GP accountant takes time to adopt the new system and gain confidence which may lead to pendency in accounts and the work load also increases during this phase since both manual cashbook and the computerised cash books are to be maintained.

Once the process narrated above stabilises and the cash books are maintained regularly in the computer there was no need to maintain manual cash books. In order to dispense with the manual cash book appropriate provision was made in the West Bengal Panchayat (Gram Panchayat Accounts, Audit & Budget) Rules 2007. The Accountant General, West Bengal (AGWB) was moved to get their concurrence including conducting audit based on such e-cash book, which they agreed. The audit officials were also trained appropriately for that purpose with the joint effort of the PRDD and the Accountant General (Local Self-Government), West Bengal. The process of dispensing with the manual cash book was clearly laid and the District Magistrate (DM) has to send a team to check the status of computerisation of accounts and if the same is found satisfactory an order is issued by the DM. About 489 GPs were maintaining accounts in the computer without

writing any manual cash books as on 31.3.2011.

In order that the financial status of the GP may be known easily a file transfer protocol was developed at the beginning of the year 2010 for uploading data on a fixed format for storing the data in the PRDD server. That enabled the financial status of the GP to be seen through the website of the PRDD. The GPs were asked to upload the monthly financial status in a particular format (called Form 26) for knowledge of higher officials and comparing the status with other GPs was possible with little effort.

Tremendous effort was made in training and capacity building of the GP employees and some of the elected functionaries. The progress was rather slow in the initial years. Number of GPs where the software could be installed was merely 29 at the end of the 31 March 2005 (PRDD, 2005). The number increased to 401 at the end of March 2007, though the software was operational satisfactorily in 289 GPs only (PRDD, 2007). Personal involvement of the DM and the District Panchayat & Rural Development Officers were very crucial apart from monthly monitoring of the progress of installation, customisation and stabilisation of the software and to make that operational at the state level. At the end of March 2011 accounts of 2936 out of total 3351 GPs were computerised (personal communication from PRDD). Out of those 1642 GPs uploaded their March 2011 accounts for viewing by others. The uploaded information is visible in the website wbsrdagpms.org.

It is pertinent to mention that the NIC has developed one accounting software called PRIASOFT as desired by the MoPR, GoI for keeping accounts of Panchayats. However, the software is to be used online and GPs not having stable internet connectivity will not be able to utilise the same directly. In many cases the vouchers are taken to block or district HQ and the same is entered to generate cash book, which is a delayed process. This system, though quite helpful to GPs with little capacity, the GP will have only the hard copy of the cash book and all the data will be in the server of the NIC. The GP will not be able to do any analysis themselves independently to gain more insight of its accounts for improving financial management. Thus, the accounting system is highly centralised which is against the spirit of decentralisation and related capacity building. In West Bengal the entire accounts are maintained in the computer of the GP and maintained by its own employee and the GP shares the data with others at their will.

Other e-Governance Initiatives at the GPs: There are several functions related to delivery of services to the citizen carried out regularly by the GP. It was a fit case to computerise those activities for improving functioning of the GP. The GPMS software was thus developed to handle the following functions :

1.   Death and Birth registration.

2.   Issuing Trade Licenses.

3.   Management of tax on buildings and non-tax revenue. This feature was added later for capturing data relating to value of property; generation of the register of the market values of properties; list of tax payers and their assessed tax and tax paid by them etc.

Universal application of the GPMS for carrying out those functions was not so seriously tried for remaining focused on computerisation of accounts and the same was not also monitored from the State level. However, many GPs are utilising the software for those functions. The quality of services related to issuing those documents has improved substantially as shown in the Table below (PRDD, 2006).

Improvement of Services by Using GPMS Software

Item	Time taken before using GPMS	Time taken after using GPMS
Birth & Death Certificate	At least 7 days	Within one hour
Trade License	At least 7 days	Within one hour
Cash book & ledger writing	2-3 days	30-40 minutes
Accuracy of work	75-80%	100%

Universal use of the software in all GPs of the State for those functions is possible to be achieved with some more effort. It was also planned to develop the software to help sanctioning building plan but the same has not yet been done. Sanctioning of building plan and showing its location in GP map (which is being developed in GIS platform) will help habitation planning.

Capability has also been developed at the GP level to access the list of households including the BPL families, derived from score-based ranking of the household survey and uploaded in the website of the PRDD and utilise the same for various purposes. However, the GP or any other body such as the PS or the BDO has scope to make any changes, if necessary, which has to be done centrally on receiving request from the GP or others. The list is widely used by the GP and there is no scope to manipulate the list, which makes implementation of various poverty alleviation programmes more objective.

Computerisation of Accounts of the PS & the ZP : PS and ZP have to deal with more diverse nature of funds, which is generally received from the State government through allotments and fund is drawn from the treasury. The same is kept in the Local Fund Account maintained in the treasury. Also fund for GP pass through the ZP and PS in many cases. Those bodies also maintain some programme-specific bank accounts for which fund flows straight to their accounts. Software for financial management of the PS and the ZP, which are guided by the same accounts rule, is therefore more complex than that of the GP. Development of the software was first attempted through a pilot project sanctioned by the Ministry of IT, GoI with the help of the Computer Maintenance Corporation around the year 2002. However, the task was taken over by the IT wing of the PRDD and the software was ready for installation after trail run and several rectifications around end of the year 2003-04. Steps were taken thereafter for installation of the software in all the ZPs and PSs. A separate team of 7 IT professionals, called Data Base Manager and another 15 professionals known as Programme Support Managers was raised to exclusively work for the IFMS. The first category of professionals was at the State HQ and the others were placed at the district and they were engaged in supervising installation and troubleshooting as well as hand-holding all processes for computerisation of accounts. The software is known as Integrated Financial Management System (IFMS), which is also known as SARAL indicating that it simplifies the task of management of finance of those bodies. The IFMS also had the same features of performing all the functions as mentioned in respect of GP accounts. However, there are around 150 different ledger heads, each head dealing with one particular type of activity. Each type of activity was given unique code for

identification and easier compilation so that sector-specific progress of expenditure can also be worked out easily. Those were aggregated in 13 major receipt & payment heads such as Own fund; Non-plan grant from PRDD, Non-plan grant from other than PRDD, Plan grant from PRDD, Plan grant from other than PRDD, GoI Scheme fund, Loans & Advances, Deductions & Recoveries from employees etc.

Use of the software made it easier for tracking and planning expenditure as well as knowing details of collection of own source revenue. The new system was a marked improvement over the earlier practice when even fund allotted for one purpose was found to have been used for other purpose because of poor documentation and management practices. It was possible to get exact amount of unspent balances bill-wise and sector-wise against various types of funds received by the PS or the ZP after the computerisation. Monitoring of own revenue collection and making various analysis for improving collection was another important outcome. The clarity and correctness of financial data, because of adopting double entry system of accounts, also helped tremendously in monitoring and accounting of the entire fund management of those bodies. The software was designed to provide a communication module through which the incremental data for each day may be transmitted to the server of the PRDD through web-enabled file transfer protocol. This feature was added by the end of the year 2008 and that helped sharing the financial status of the ZP and the PS through the website of the department in a prescribed form (known as Form 27). Since the report is system generated, there is little scope to manipulate the figures (in conventional mode the report is typed separately leading to even unwanted mistakes). This makes it possible to access the latest financial progress in respect of every PS and ZP by any one who has the password. Later on the same was made available for public view and any one can see the latest financial status of any ZP or PS by logging in to wbprd.nic.in, the website of the PRDD, and the data may be seen by entering the icon G-to-G at the top of the website. Availability of the financial records of PS and ZP electronically has become very helpful in tracking the progress of income and expenditure of those bodies. Thus, it is possible to dispense with separate submission of utilisation reports, which is a nagging problem related to providing fund to the local bodies. Also, progress of expenditure of all important programmes, fund lying unspent on each item are known easily along with intra and inter-district comparison with the click of a mouse. Such information is a strong tool with the Panchayat executives as well as the State level officials, who can easily analyse the financial performances and take measures for improving efficiency of utilisation of fund. In fact, the PRDD has ordered that the monthly financial analysis in Form 27 is to be placed in the meeting of the Standing Committee of Finance in both PS and the ZP and copies are to be given to all members of the Committee including the member from the opposition side. This has improved both transparency and monitoring including timely writing of cash book, which was a problem before introduction of this system. Previously the financial performance of any PS or ZP could be known only from their physical reports, which were generally programme-specific requiring compiling all those reports to know the complete financial status of any local body or by actually visiting those bodies and checking the cash book. The computerisation has helped to get the picture from anywhere and the fact that others are in a position to know the details easily has led to marked improvement of financial discipline in the PS and the ZP.

The progress of computerisation was slow at the beginning, partly due to the time taken to make good the deficiency of accounts keeping and in adopting the double entry system of accounts keeping. In every case the customisation of the software has to be made after ascertaining that the cash book is fully reconciled with the treasury, which maintains the local fund account of all the PSs and the ZPs. The task is quite complicated in practice because many schemes have been implemented over the years and some of those schemes had unspent fund not fully classified or reconciled. In fact, a portion of the unspent fund could not be clearly traced and all such amount had to be surrendered to make the cash book clean and devoid of any amount not known precisely. The target was to computerise all the ZPs by the year 2004-05 (PRDD, 2004-05) but only 8 ZPs could be computerised by the end of that year. The figure rose to 16 by the end of the year 2005-06 and the process was completed in the year 2006-07. Computerisation of the PS has been more long drawn because of much larger number of such bodies, remoteness of those bodies and lower administrative capabilities. Computerisation of the PS accounts started practically from the year 2004-05 and the software could be installed in 32 PSs only by March 2005. The number rose to 63 by the end of the year 2005-06 and 205 by the end of the year 2007-08. However, proper use of the software and migration to only electronic cashbook took more time and around 60 per cent of the PSs in which the software was installed was functioning satisfactorily (cash books up-to-date up to the last week on any day of visit) at the end of the year 2007-08 (PRDD, 2008). As on 31.3.11, IFMS has been installed in 332 out of 333 PSs and the same is running satisfactorily in 300 PSs. However, only 269 PSs could upload the financial details of the month of March 2011 in Form 27 on time. Thus the process is still not complete and the PRDD in their vision document "Road Map for the Panchayats in West Bengal" has stated that the entire process will be completed by the year 2011-12 (PRDD, 2009).

Business Process Re-engineering and other Prior Steps : Like any other e-Governance project several steps were taken for re-engineering the processes including amendment of rules as mentioned before. Those include :

1. Framing new rule, i.e., the West Bengal Panchayats (Gram Panchayat) Accounts, Audit and Budget Rules, 2007. The rule replaced the earlier accounts rule and has several features including maintenance of accounts in double entry system as well as recognising the computerised accounting system as a substitute of manual system. The rule also allows auditing of the computerised accounts by the Accountant General.

2. Amendment of West Bengal Panchayats (Panchayat Samiti and Zilla Parishad) Accounts and Finance Rules, 2003 in July 2008 for empowering the state government to direct a ZP or PS to adopt computerised accounts and allowing the authenticated printed records to form part of the cash book, subsidiary cash book, ledger, receipt and payment vouchers and other records rendering it unnecessary to prepare manually any of these records.

3. The Accountant General (Local Self-Government), who conducts statutory audit of all the three tier of Panchayats of the State, was consulted for allowing auditing of the computerised accounts.

4. One post of Programme Officer (IT) was created to be manned by a middle level WBCS (Ex) officer for heading the IT wing. Few more posts of IT professionals were created in the State HQ for

providing technical support to all IT related initiatives.

5. Posts of District Information Analyst and Computer Assistant, requiring master degree and bachelor degree in Computer Applications, respectively as essential qualification, were created and personnel recruited for providing technical services to the Zilla Parishads.

6. Creating the posts of Block Informatics Officer, requiring minimum graduate qualification in Computer Applications, and Data Entry Operators for providing technical services. All those posts were filled up and their presence at the PS was very useful in computerisation of PS and GP.

7. Changing the recruitment rule of the Executive Assistants of Gram Panchayats and other assistants of the Panchayat cadre of employees for making Certificate Course in Computer Applications as their essential qualification for the direct recruitment as well as promotion from the post of Sahayak (Dealing Assistant) to Secretary of the GP.

Capacity Building and Hand-Holding : Building capacity for any e-Governance initiative is one of the most crucial elements for its success. The same is even more important for e-Governance in PRIs because of lower institutional capacity of those bodies. Therefore, capacity building exercises of Panchayat functionaries were taken up in a systematic manner and on a sustained basis, which required dedicated training facility and organisational set-up for continuous training and hand-holding of the employees and elected functionaries. Keeping that in mind computer laboratories with internet facilities were established in all the five Extension Training Centres of the State and dedicated faculty members were arranged for conducting training. The facility of the State Institute of Panchayat and Rural Development (SIPRD) was also utilised to orient and train officials and Panchayat functionaries. Two employees of the GP and three employees from the PS were trained for five days in residential mode for receiving intensive training. The same was followed by hand-holding at their offices. The BDOs were also trained and in fact, foundations training of the WBCS (Ex) officers at the Administrative Training Institute, who are posted as BDOs and Ex-officio Executive Officer of the PS, include training on IFMS and GPMS. So is the practice for Joint BDOs, who act as DDOs of the PS and are trained at the SIPRD at the induction level. Block level officials like the Block Informatics Officers were given advance level training to provide support to the employees of PS and GPs as and when needed. District Information Analyst and Computer Assistant of the Zilla Parishad were given advance training for providing IT related support to the ZP employees. Senior officers and the entire accounting staff of the ZPs were also trained on use of IFMS. The progress and quality of training was watched very closely by the PRDD and reviewed with the senior officers of the district level. The training was followed up by hand-holding. Any problem of data structure could be sorted out from PRDD headquarter by the IT team by getting the entire database transferred electronically and re-mailing the same after correction. For other problems, particularly at the GP level the system could be rectified centrally by logging in from the State headquarter using remote desktop software, which can be downloaded freely. This, however, required internet connectivity and sharing of the password by the GP level operator. The process was quite effective and saved many visits to the GP. The dedicated team from the district physically visited the GP and PS offices whenever needed. All the GP level operators were called to the PS office

during all planned visit to the PS by the district team of facilitators and their queries related to both accounting and computerisation could be sorted out. Many exposure visits were arranged to orient and motivate the employees of those GP and PS where there was delay in picking up the work. It is pertinent to note that in all the three tiers, lot of supports had to be provided in improving the accounting practices before computerisation of the accounts. In fact, the professionals engaged on contract for supporting PS computerisation were all B.Com (Hon) passed with certificates in computerised accounting or other IT related education as their minimum qualification and they were very helpful in sorting out problems related to both accounting or computerisation process.

Rural Household Survey List and the National Social Assistance Programme

All the programmes targeted towards the poor require proper identification of families living Below Poverty Line (BPL) as well as to retrieve information easily from the identified BPL list. Conventional list of BPL families maintained in hard copies makes it difficult to easily retrieve any information, compilation of various aspects of such families by the officials and to have access to the data by the citizen. The PRDD took the initiative of computerisation of all the rural household data while taking up the survey for identifying the BPL families in the year 2005 through score based ranking. All the villages were codified using census codes and the villages were arranged based on its location starting from the Gram Sansad to which the village belongs and each household was given unique identity. Twelve parameters (13 parameters were selected for identification of BPL families for the Tenth Plan but in West Bengal only 12 parameters were utilised) collected from the household survey were captured and entered against all households. That helped to work out the total score of each family and to identify the BPL families by ranking all the families of the State. This exercise was done by all states for identifying BPL families. However, this does not require publishing list of all households irrespective of their BPL status and having the names of all the family members and their age etc. The PRDD captured the names of all the beneficiaries and published the entire RHS database for viewing by the citizen in a website (wbprd.org/rhs) for which there is a dedicated server. The RHS database is very useful for any one including government departments and the Panchayats for knowing related information as well as generation of list of beneficiaries for many poverty alleviation programmes with complete transparency and least mistake (presuming the BPL list is correct of which there are many complaints, which is not relevant here). The GP and PS employees were trained to access the data from the website and to use the same for various purposes.

One very important application of the RHS database is identification of the list of persons eligible to get benefit under the National Social Assistance Programme (NSAP), which now have three components covering large number of beneficiaries (around 1.7 million in West Bengal). Payment of monthly pension is also done using software known as SEBA specially developed by the PRDD. The same was introduced in the year 2008-09 and was fully operational from the year 2009-10 (there are eight blocks of the State where it has not been possible to make payment using the software because of administrative problem). The MoRD developed software subsequently for making payment of pension in the accounts of the beneficiaries. The problem with that software is that it is not generated from the RHS database, which makes it vulnerable to adding names arbitrarily without necessarily being included in the BPL list or dropping an existing family from the

BPL list. The PS, which has been assigned the task of making payment to all NSAP beneficiaries automatically generates the bank branch or post office-wise scroll and transfers the total amount, as per the scroll, to each bank branch or post office and the beneficiaries collect the pension from those institutions. After the payment is disbursed, the PS uploads the disbursement status in the website using the SEBA software.

The entire database has been made available in the server of the PRDD. This helped to know the nature of pension any individual is receiving as well as those who fulfill necessary criteria but not yet covered under the pension scheme. In the meantime the coverage under NSAP was made based on entitlement and it was very convenient to find all those who are eligible and yet not covered under the programme. The software also generates list of freshly eligible persons who attain the minimum age from the database, which makes it easier to extend benefit to them. Availability of the data in the public domain has helped to check against any complaint and provides transparency to the system.

GIS Based Planning and Decision Support System

There is need for having maps; showing the natural resources, socio-economic infrastructure and other information of all Panchayat bodies particularly the GP and the PS for decentralised planning. All data are normally available and presented in tabular or descriptive form and it becomes difficult to visualise the variations or the gaps in progresses made, necessary to plan for future, across geographical region or over time so easily from such data than what is possible when the same is presented on maps. Another great advantage is that data for various sectors may be presented in different layers, in isolation or in combination and in different

colours to know the progress of various aspects of planning through suitable measurable parameters as well as to differentiate across region or time. Another advantage is that data may be easily aggregated and disaggregated administrative jurisdiction-wise to know which geographical area is in what state of progress because aggregated data normally hides much information essential for decentralised planning. In fact, for judging inclusiveness of growth such disaggregation (up to GP-wise) and analysis is essential and is very relevant in the current context of growing inequality and questions raised on growth not being inclusive. The GIS map is derived by vectorising boundaries and other objects shown in the maps prepared through field survey (revenue map) and may be seen in the computer with appropriate software. Such GIS map may be geo-referenced to know every location precisely and data on such maps become more useful since locations as well as other spatial parameters are known exactly. Area-wise data available from any source (such as Census data available revenue village-wise) may be easily ported on the GIS map to visualise the data on the map. However, one practical difficulty is that all data like census etc. are available revenue village (mouja)-wise, which does not reflect the habitation-wise details. There is no straight conformity between the revenue village and the habitation, which is just a cluster of houses having local identity. Disaggregated data available revenue village-wise are inadequate to judge benefit to the actual population or may lead to wrong conclusion if one does not look into the habitation details. For example, availability of ICDS centre may be reported revenue village-wise and habitations in that revenue village may be distributed in a skewed manner within the revenue village, making it difficult to judge the actual access from citizen's point of view. The entire revenue village related data become a black box without knowing precisely where the

habitation and the facilities are located except that those are located somewhere within the revenue village. Same is the case related to location of schools (now very important with promulgation of the Right to Education Act), Health & Family Welfare sub-centre etc. to judge how far the potential beneficiaries are living from the facilities and if there is any problem of access due to natural barriers etc. However, distance may be checked only if the map is geo-referenced. One particular problem was faced by the PRDD in working out the Core Network of roads for planning new roads to be constructed or upgraded for providing connectivity to all the habitations as per the PMGSY guidelines. That necessitated preparation of the Block-wise GIS maps and to geo-referencing the same showing all the important geographical, administrative and socio-economic features including habitations and existing road connectivity. PRDD took an initiative of preparation of block-wise geo-referenced GIS maps of the entire State showing all those features in the year 2007. The work was assigned to one private partner known as Riddhi Management Services (RMS). Satellite maps were collected from National Remote Sensing Centre (NRSC). The same was superimposed on the vectorised revenue map and the actual boundary and other features were validated through field verification. The actual location of all important physical infrastructures was ported on the map after collecting the latitude and longitude by using hand-held GPS. All the relevant features may be seen layer–wise for any block, GP or even revenue village along with actual location of the habitations for taking appropriate decision making plans. Web-enabled geo-referenced GIS maps of all the blocks have been prepared and the maps are available in the website trendswestbengal.org/pmgsy. For GP level planning there is need for having proper maps of the GPs showing boundaries of revenue villages (there could be one revenue village spread over two GPs), habitations and other

natural and socio-economic features required for planning. Preparation of GP maps is more tedious and requires more validation (lower the geographical area more precise is the required accuracy) and, therefore, simple disaggregation of the Block map, which shows the GP boundary, will not serve the purpose. But aggregation of GP maps for higher level maps will be more precise. However, since only revenue map is available with authenticity one has to first prepare block maps. The work for web-enabled GP maps showing necessary features is in progress and till 31.3.2011 out of 3351 GPs of the State, maps for 3034 GPs have been prepared. All those are sent to the GP concerned for validation by the local people. Till 31.3.2011, 732 GP maps have been revalidated and those have been uploaded in the website of the PRDD for use by the GP or anyone else (the maps may be seen by clicking in the map appearing in the opening page of the website of the PRDD wbprd.nic.in). Preparation of GP plan, including spatial plan has become very easy in those GPs. The next task is to integrate the Plan Plus software, developed by the NIC, with this system so that plans prepared in Plan Plus may be ported in the GIS maps straight way.

Development of the system has been a major exercise, mostly done by the private partner. For making full use of the facility as well as timely updataion of the data after definite interval (say every year) as well as showing any development, such as construction of a new road, health centre or irrigation project etc. in the map there is need for building capacity of the PRIs. The same will be another long drawn process and may be attempted as a special drive during the Twelfth Plan. Going through this exercise will change the planning capability of the local bodies tremendously and will lead to preparation and monitoring of plans being implemented in any area. Also, plan

implementation will be much more transparent than what it is now. The maps are being also used for various decisions making. Colour-coded maps showing progress of any particular programme within different Panchayat area has been found to be very effective in improving implementation of the programme (for such use there is no need to have geo-referencing and notional maps will do). The PRI members have been found to be more able to internalise and remember the status of progress of various thematic aspects of development when presented in maps with different colours than when the same data are shared in tables or charts etc. In fact, after the election to Panchayat bodies in the year 2008 all the GPs were given hard copy of maps showing status of development on various aspects and how the same compares with other GPs of the block and the district average.

E-Procurement

Procurement is one area of difficulty for the PRIs (as well as government) requiring substantial improvement. The problem is more in respect of taking up larger schemes at the higher tiers for which adoption of e-procurement is the best option. In West Bengal the same was felt for implementation of the Prime Minister's Gram Sadak Yojana (PMGSY), which is implemented by the ZPs. The process of calling tender and selection of the contractor was facilitated by the West Bengal State Rural Development Agency (WBSRDA), which is an agency of the PRDD. The software for calling tender was developed by the NIC, which is now in use in several states. The biggest challenge was to build capacity of the Zilla Parishad for being able to adopt the process for not only implementing PMGSY but also for all procurements by the ZP. The process requires training of officers of the engineering, administrative and accounting cadre, providing necessary IT infrastructure and arranging digital signature for at least two officers from each of the said three disciplines.

Another important step was to train all the contractors to be able to submit their tender online and to be aware of the process of computerised evaluation. This was a prolonged process and apart from providing training there was helpline in the PRDD and the ZPs were to make arrangement so that any contractor who is not in a position to invest on own computer system may get access to any public facility. This was all the more important since all the enlisted contractors had to upload their basic organisational details, called "My Document" not linked to any particular tender in the website so that they need not provide those information again while participating in any bid in future. Management of change of practice in such cases is yet another problem, which often gets aggravated due to existence of various vested interests as well as basic apathy to change mode of functioning in any bureaucracy. The problem is no less at the ZPs and it required sustained effort to introduce e-procurement as a routine procurement practice. However, initially both the manual mode and the electronic mode of submission of the tenders were allowed and the ZPs were to stop manual submission of tender in due course. As on 31.3.2011 there were three ZPs, namely North 24 Parganas, Nadia and West Midnapore which were procuring work beyond ₹ 5 lakh completely electronically. The other ZPs have been asked by the PRDD to migrate to complete e-procurement for all procurement above ₹ 5 lakh from 1.1.2012.

The North 24 Parganas ZP has been calling tender using both manual and electronic mode. The District Magistrate, who is the Executive Officer, proposed in the General Body that they will resort to e-procurement exclusively without any option for manual tendering. The Governing Body resolved so, for improving efficiency and transparency of procurement. Eleven awareness camps were held with the

bidders and a fortnight long enrolment camp was held in October 2010 to guide the bidders to upload their "My Document". A special facilitation centre was opened to answer queries of the bidders and providing demonstration of the procurement process. The ZP called 124 tenders amounting to ₹ 36.56 crore from 1.4.2009 to 31.10.2010. The average price at which the tender was settled was 5.19 per cent lower than the bid price. The same ZP could process 102 tenders during the brief period from 12.11.2010 to 28.2.2011involving an amount of ₹ 26.78 crore and the average price at which the tender was settled was 16.41 per cent lower than the bid price. Thus, the efficiency of calling tender, apart from transparency and objectivity, improved substantially and more competition resulted in saving of huge amount (316 per cent more than the amount that would have been saved because of the difference between the offered price and accepted price if manual procurement process was followed). This should encourage other ZPs also to migrate to procure through electronic mode only without leaving any provision for manual submission of bid document. The same is yet to happen. Also, now it is possible to start e-procurement in the PSs also, which is one major task ahead.

Common Service Centres at Panchayat Offices

The GoI launched the Common Service Centres (CSCs) in the year 2006 under the National e-Governance Plan (NeGP) for improving delivery of those services which could be delivered through the internet to the citizen as a part of its commitment for Common Minimum Programme. Guidelines were

issued for establishment of those centres by the Department of IT, Government of India (GoI, 2006). In West Bengal, CSCs were to be established in 6,797 locations to provide access to all the villages in partnership with private agencies. Two CSCs were to be established on an average within one GP. The uniqueness of West Bengal is that the PRDD decided to establish one of the CSCs within the GP office. This will help to develop synergy of delivery of services through electronic mode by the GP and the CSC. The GP will be able to access some of the services from the CSCs and the citizen will be able to get information related to functioning of the GP through the CSC. The GP normally provides suitable space at a nominal cost to the Village Level Entrepreneur, who is normally a local youth. Location of CSC in the GP office has helped the GPs to outsource some of their data entry and computer related works, such as entering data related to MGNREGA etc. from the CSCs. This has helped to reduce pressure on the GP employees by allowing outsourcing of some of the works. However, extent of such outsourcing varies widely and is not yet universal. In fact, keeping that in mind CSCs have been established in many PS also. As on 31.8.2011, total 5822 CSCs have been established in the State out of which 1481 CSCs have been established at GP premises and another 179 CSCs have been established in the premises of the PS.

Problems, Challenges and the Way Forward

Several problems have been faced in introducing various e-Governance measures as mentioned above. The major problems and challenges involved; how those were addressed and lessons for future are briefly mentioned below :

The exercise requires change of mindset of the ordinary employees, many of whom are quite aged, for their acquiring adequate skill and confidence. This is very difficult to achieve

in a short period. The strategy adopted was to find the champions of the initiative, who show exemplary interest and are willing to take the challenges. They were mentored and closely monitored and once the initiative is introduced successfully in the Panchayat, where the employee is posted, other employees were taken there for exposure visits. Those who have championed were also deployed as trainers for motivating their colleagues.

Monitoring of progress of large number of GPs is a major problem. The teams of Programme Support professionals were provided extensive training and they were made to visit various Panchayats regularly. Their work was monitored by feedback through SMS indicating the type of activity taken up by them while visiting the GP and the activities (such installation of software, done some troubleshooting etc.) were coded. The SMS received in the computer through Modem got registered, decoded and analysed seamlessly without any human intervention. From the computer report both performances of the Programme Support professionals as well as status of computerisation in the GPs visited by them could be easily monitored. This system helped timely interventions. Some of the supports could be provided centrally through helpline, which had to be properly manned.

Although every department speaks of promoting e-Governance that is not often matched by commitment including sparing quality time by the authority concerned, providing financial resources to hire manpower and arrange for hardware etc. Procurement of hardware, for which there is little expertise at the lower level, also becomes a problem, if not done properly or monitored. It was possible to create posts as well as to hire professionals out of untied grants etc., mentioned before and they could be trained within a short time. Special attention

was paid on procuring hardware on time. Payment for hardware and even support staff was substantially borne by the Panchayats out of their own fund, which helped own the programme by those bodies.

The initiative was assigned very high priority and the same was monitored very closely at high level regularly. There was also regular review with the Chairpersons of the ZPs and the District Magistrates. The district-wise and Panchayat-wise progress made was published in the departmental website and also shared with the key field officials every month, which created competition and pressure on the lower level functionaries to complete the task early. There was a system of score based ranking of the performance of the PRI by the PRDD at the end of every quarter and progress of computerisation was given due weight in the total score to rank those bodies. That helped paying due priority and attention by DM (who is the Executive Officer of the ZP) and other senior officers for all activities related to computerisation.

There is no alternative to developing in-house capacity. There is need for a core team even to outsource professionals. A small team of IT experts consisting of regular and contractually engaged professionals was developed in the department. Also, posts were created in the PRDD to exclusively work for these initiatives, as mentioned. In fact, one of the senior Joint Secretaries of the department was exclusively assigned the task of implementation of various e-Governance initiatives because such type of activities require undivided attention and any officer entrusted with many activities will not be able to pay required attention.

High speed and dependable internet connectivity is continuing to be a problem in many areas. Continuous coordination with the BSNL helped to improve connectivity in some

areas but the problem continued in many areas.

At the GP level many of the GPs could not start using all the features of the GPMS. For example, issuance of Trade Certificate, Birth & Death Certificates and Management of own revenue was not introduced in many GPs. There was no monthly monitoring from the state level on those items and the GPs did not assign enough priority to those works implying that a strong monitoring and quick follow-up are the essential features to make any e-Governance project successful. This may sound obvious but is not always remembered during implementation.

Regular updating of data in the GIS based decision support module is a problem. It was decided that hand-held GPS will be provided along with necessary software to capture and record all changes regularly, which did not happen. Lack of adequate manpower and over-utilisation of available persons of the PS and GP on flagship programmes like the MGNREGA was one of the reasons behind the difficulty. Strengthening of the block/PS office will be necessary to update and make use of available data for planning and other decision supports.

For many of the functions, the GoI has taken initiatives for developing software at the national level. For example, PRIASOFT has been developed for accounting and Plan Plus has been developed for planning. The existing software has to be integrated with those software without requiring much changes at the operation level for which NIC has to work in close collaboration with the PRDD (other state government). In fact, there is need for integration of all the software since different programmes implemented by the GoI are using different software developed independently. It should be ensured that such integration shows the benefit flowing to any particular family or citizen irrespective of which department is implementing the programme. For example, issue of birth certificate should be linked to issuance of ration card in due course and issuance of death certificate should be reflected in the electoral register for excluding the name from the voter list through due process etc.

The most crucial of all is the administrative will at the highest level of the department/government for any such initiative. E-Governance programme has failed to take off in many cases because of lack of will and priority at the highest level of the organisation. The problem is further aggravated by frequent transfer in government. In this case key officials of the PRDD continued to work in their positions for a very long period of seven/eight years and maintained high level of commitment for the initiatives.

E-Governance initiative is a continuous process and the same evolves in the context of any particular organisation over time. There has to be a beginning for adopting e-Governance for all the PRIs of the country for improving delivery of services to the rural people. More adoption of e-Governance should be one important agenda for the ensuing Twelfth Plan at the central, state as well as at the local levels. Using mobile phone for delivering services has tremendous potential in improving certain aspects of governance since ownership and use of mobile phone is very high even in remote rural areas; whereas computer will not be owned by them for many years to come. There should be an organised effort in introducing m-Governance for improving governance using mobile technology.

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