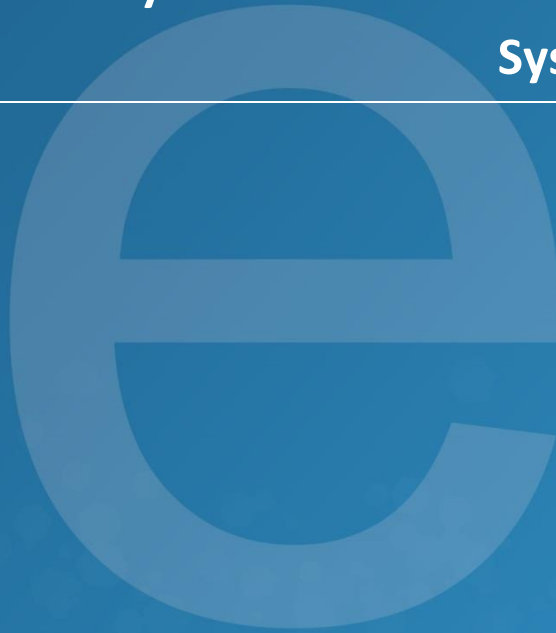# Case Studies on
e-Governance
in India

Integrated Forestry Works & Financial Management System (iFWFMS)

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Integrated Forestry Works & Financial Management System (iFWFMS)

An e-Governance Project of the Govt. of Madhya Pradesh

Amitabh Singhal

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1.   Abstract

With the overall objective of streamlining different core processes and the lifecycle of financial transactions of the entire forest department activities, the project 'Integrated Forestry Works and Financial Management System', was launched in Madhya Pradesh in 2009. The project has, by now demonstrated its importance as a holistic and integrated e-governance application for managing complex tasks such as forest management which involves processes like budget and receipt allocation, expenditure, revenue, physical and financial monitoring of forestry works. The project involves amalgamation of capabilities of diverse technologies like MIS, satellite imagery, remote sensing, and GIS to view the actual physical and financial progress of forestry works in near real time that is indispensable for sustainable forest management.

The benefits of iFWFMS have started counting. Because of the new system the process of financial governance management has now been streamlined, automated and made transparent. For instance, all the forestry work sites on ground, almost 15000 thousand annually, are now geo mapped and the data collected is projected on the project web screen while all details are accessible. Financial discipline has enhanced while at the same time efficiency and manpower productivity has increased. One unique aspect of iFWFMS is its relevance in the Right to Information (RTI) Act with all types of forest activity related information available online and thereby guaranteeing transparency of the system and open governance process to all citizens.

The success of iFWFMS has found relevance in its replication in other states. The project work-flow system as the chosen design is being replicated in other similar forest administrative processes as it stimulates real life functioning of a typical government department. The application has been shared with the other states at a very nominal cost and the money earned in turn has been reinvested with the goal to further develop the ICT application. Among the major outcomes realized, the system has aided in authentic planning for executives and decision makers at all levels of the forestry department. One key learning from the practice highlighted is such a concept and application can be applied in any sector, be it water shed management, plantation, rural management or health. One of the key challenges faced during implementation was integration of the widespread, multitude and dispersed activities of the forestry department right from the field units up to the headquarter level and designing the application accordingly. Overall, the system is seen as an example of responsive governance.

2. Keywords

DDO, Integrated Forestry Works and Financial Management System, iFWFMS, forest department, transparency

3. Note to Practitioners

The department of forest is a key administrative unit of each state. The essence of this department emanates from the fact that safeguarding, conserving, maintaining, protecting and sustaining the forest cover and resources and its judicious use is linked to very existence of the natural and human ecosystem. Of late the forest departments have been facing their own set of unique challenges that have played foul in efficient and better administrative management of forest activities. These includes financial management and monitoring with ambiguities in budget allocation and utilization; poor office coordination involving multiple schemes, units and layers; non-availability of centralized and reliable data of various works, assets etc. adversely affecting planning, monitoring and timely analysis, evaluation of problems and prompt interventions.

An e-governance application like the Integrated Forestry Works and Financial Management System (iFWFMS) can help to overcome challenges as stated above. It can assist immensely in bringing in required transparency in the work with better outcome. Such a system can ensure financial discipline in departmental works with maximum accountability. With better data and information management and coordination, it can assist in better planning, monitoring and evaluation and improvisation. Such an application turns out to be a great time saver and put halt on wastage of resources. It works towards a responsive department and bridge the citizen-administration gap to a great extent.

4. Project Context

4.1. Background / Pre-implementation Scenario

Madhya Pradesh, one of the largest states in India, has got the maximum forest area in the country which is 94689.38 sq. km, constituting 30.17% of the geographical area of the State and 12.44% of the forest area of the country. Quite naturally, issues like efficient forest management, sustainable maintenance and preservation have emerged as core concern areas in the light of increasing forest degradation, destruction and climate change. One key challenge has been managing wild life and forest resources around 893 forest villages due to the vastness of the area as well as due to widely dispersed and multiple levels of activities involved ranging from budget maintenance to managing forest dwellers. Besides, the management of forests and wild life is a complex task involving many stakeholders with diverse goals

to meet multiple requirements with regard to numerable projects and differing objectives at many levels.

Obviously then, the process of forest and wildlife management requires to deal with a large number of verification, sanction, disbursal authorities and controlling offices. This requires a platform to facilitate collaboration, coordination, seamless integration of activities among multiple stakeholders towards smooth automation of key processes and efficient data management and sharing. Add to this the management of a large work force of around 300 lakh man days of employment annually along with constant need for speedy, well managed and updated information with regard to monitoring and decision making.

The mammoth task has been managing the budget of such a vast department, a fact confirmed time and again. It has been revealed that most of the audit reports exposed that large amounts of the budget distributed was not utilized and even if it was utilized it was only up to 60%. Whatever budget is surrendered remained of no use since the department had not generated the kind of employment which it should have. The challenge was in efficient handling of the works, accounts and related activities of various offices of the department and difficulties faced by the officers working in remote areas without adequate banking facilities and infrastructure. Another limitation was any work accomplished by local manpower was to be paid in cash for their services on a daily basis. This often led to many irregularities.

The roadblock was the manual system was highly prone to errors and falsification of records due to wrong entry of data or false calculations of wages or arrears. There had been instances wherein information from log books went missing. The non-availability of centralized and reliable data of various works adversely affected planning, monitoring, timely analysis and evaluation of problems and their prompt interventions. The hand filled vouchers were submitted only after the completion of the work and the tracking of the ongoing work and related expenditures was extremely difficult.

The budget allocation and disbursal under the manual system had its own loopholes. In a non-technical manually driven system, the inefficient practices led to huge wastes in budget allotment. For example, there are situations wherein around 30% of the budget was not allotted at all leading to a budget utilization of only 60 to 65%. Additional problems included, since the budget was allotted throughout the year through many channels at many levels, hence it took a long time for the budget to reach at the actual work places resulting either in over or under spending budgets. The inappropriate expenditure resulted in a large number of audit objections.

As a result record keeping was never up to date. Data capturing in time was difficult. Payment structures were rather random based on instant vouchers being produced

without data cross checking and validation. This because the pre-digital administration had no fool proof provision of actual or provisional verification of all the work before the payment process executed by the Drawing and Disbursal Officer (DDO). Instead the manual maintenance of records and accounts was victim to delays, errors or falsification and the non-availability of centralized reliable data delayed the possibility of a timely analysis and intervention.

5. Project Overview

5.1. Project Description

Against this background, the Integrated Forestry Works & Financial Management System (iFWFMS) system has been developed for "efficient handling, monitoring and management of the accounts and budget" of all forest and wildlife conservation related works of the Madhya Pradesh Forest Department. The project has been designed with the goal to exploit the capabilities of diverse technologies such as various ICT applications, MIS, satellite imagery, remote sensing and GIS to functionally integrate multiple administrational tasks of the forest department including budget and receipt allocation, expenditure, revenue and forestry works.

The integrated application has helped in providing efficient online supported "work-wise, scheme-wise and head-wise monitoring" mechanism to guarantee "effective budget allocation and utilization" down up to the lowest layer of the department. With this the iFWFMS system has the advantage of automating almost all major functions, processes and services related to all stakeholders. As a modus operandi, all the authorities involved including BCOs[1], DDOs[2] and SDOs[3] have been provided with the authorization and access to use the application to discharge their responsibilities online.

Technology wise, the modular order of the program and the automating of manual routine processes have generated a role based application of the system. This has resulted in improvement in the work productivity and professional responsiveness of the officers involved and also improvement in the efficiency of the department. The reason cited is due to the new system several routine functions been eliminated, leading to transparency in all the processes with regard to "vouchers, cashbooks, revenue receipts, work proposals, expenditure status, and budget availability". These functions are now available online for viewing for all and sundry including employees, media, the public at large and others.

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[1] Budget Controlling Officer
[2] Drawing & Disbursal Officer
[3] Sub Divisional Officer

The project has a holistic approach to the entire forest cover by now. It covers the State level Districts, 16 Forest Circles, 62 Forest Divisions, 150 Sub-Divisions, 765 forest ranges, 1500 sub-ranges, and 7056 beats. It reaches out to approx. 900 forest villages inhabited by around 95 lakh tribal population.

A key thought gone into the development of the system was in view of failure of many e-governance initiatives involving substantial investments, it was felt that the project should not incur heavy investment on procurement of costly hardware, data centers, software licenses, software development etc. Instead, it was decided that the existing infrastructure and manpower within the agency must be utilized.

5.2. Objectives

The iFWFMS was conceptualized and deployed with the following intended objectives:

- To bring in much required transparency in the work of the forest department, in order to avoid working in 'secrecy' and reduce scope for instances of corruption; make all budgetary related information and data visible to the public and outside world aiming at responsive forestry administration and a transparent, accountable and service oriented working process;

- To bring in maximum accountability of every budget process including allocation, spending and returns vis-à-vis forest activities among all layers of officials and divisions;

- To automate routine and repetitive tasks and thereby increase efficiency and effectiveness of the system by minimizing the manual effort;

- To create a system that ensures financial discipline and enhanced financial management with far reaching implications in overall forest management;

- To improve capacity of the department and enhance capabilities of the staff and officials with ICT support to manage administrative and operational works better.

5.3. Stakeholders

The project supports roles for key stakeholders like BCOs[4], DDOs[5], SDOs[6], Range Officers and Range Assistants. It covers the State level Districts, 16 Forest Circles, 62 Forest Divisions, 150 Sub-Divisions, 765 forest ranges, 1500 sub-ranges, and 7056

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[4] BCO is Budget Controlling Officer
[5] DDO is Drawing and Disbursal Officer
[6] SDO is Sub Divisional Officer

beats. Stakeholders have been successfully trained in workshops at district and block level as well as in Bhopal to ensure the capacity building of the existing staff. All the 155 DDOs and 1500 Sub-DDOs have been covered in the 50 districts of the State.

The forest communities consisting of around 95 lakh tribal population constituted another important set of stakeholder. There are 893 forest villages. A total of 15,228 Forest protection Committees (JFMCs) are managing about 66873.85 square kilometres forest area under JFM programme. This includes 4747 Forest Protection Committees, 9650 Village Forest Committees, and 831 Eco-Development Committees.

The employed people through forestry operations which constituted around 300 lakh man days of employment every year is another set of important stakeholder.

5.4. Services Offered

The Integrated Forestry Works & Financial Management System (iFWFMS) has been developed to provide the following essential services to the Forest Department of Madhya Pradesh, its associated agencies and to its staff, officials and wider public:

a. **iFWFMS is enabling streamlining of the core business processes of the forestry sector and various silviculture requirements:** The new system has contributed in core business process management including silviculture requirements such as the marking and felling of trees and the managing of the wildlife. It is helping better cash book management. Involving the details of the forest advances received from the DDO and details of the treasury transactions and accounts of the Sub-DDO, direct payment made to various parties. This is also assisting in error free revenue information maintenance as well as information with regard to building maintenance, stores activity, vehicle maintenance and expenditure registers of the department.

b. **iFWFMS is assisting the forest department to manage financial resources better:** This is being done to include both resource spent and revenue received. The new process is helping to manage the revenue generated by the Madhya Pradesh Forestry Department which is around Rupees 1000 crores per annum. This management also includes regulating and streamlining the in-house expenditure amounting to Rupees 400 to 500 crores annually, apart from the establishment expenditure. The process of financial streamlining has been necessitated in the light of more than 300 Sub Division officers, 200 Drawing and Disbursal Officers and 3 budget control authorities involved.

c. **iFWFMS is enabling the department to make annual plan preparation better with ready to use data and information:** Post new system the forest department planning process is done better through online registration,

correction and approval of various forestry works, through head-wise online budget allotment and receipt allocation by the government to each department unit including detailed accounting down to Sub-DDOs[7] as well as budget allotment of approved forestry work.

d. **iFWFMS has enhanced the ability of online compilation of all work and revenue expenditure in connection with work flow:** The online compilation of work and revenue expenditure is standardized now through online preparation, examination, passing and pre-passing of various types of vouchers. This is to ensure that expenditure is done only for sanctioned work, under the approved accounting head and under the approved budget limits without any fudging or duplication.

e. **iFWFMS has facilitated in improved data management:** Post new system data management is being made easier pertaining to works such as stores, buildings, roads, assets etc., data being captured at the time of the voucher preparation and used for various reports and analysis. Further, the voucher transaction is also automatically updating various registers which are maintained for the purpose of record keeping.

f. **iFWFMS has contributed in efficient revenue management:** In regard to revenue management, the system provides for online capturing and dissemination and generation of revenue receipts and challan management, reconciliation with treasury, capture of cash copies and abstracts, automatic calculation and generation of vouchers and work proposals, capturing of the cheque drawn register and updating cashbook and related reports.

g. **iFWFMS has ensured a secured work environment:** The online system is providing a secured and protected work environment as stakeholders can use it only with a username and password protected identity and thereby can access the program and discharge duties in time.

h. **iFWFMS has helped in better voucher management:** The system supports the preparation of the voucher form. For example, the system is facilitating the generation, validation, correction and passing on of the form to the authority in charge of vouchers with regard to the availability of funds from any location. The system is offering the possibility to select the type of voucher, for example from forest to construction work, treasury to vehicle maintenance and finally printing of vouchers.

i. **iFWFMS has developed capacities of the stakeholders at various levels:** At the level of the Sub-DDO it has given the facility for recording the completion and

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[7] DDO is Drawing and Disbursal Officer

surrendering of the work and budget to higher authorities, enter the details of the revenue received and generate the challans, print and file the reports and registers, such as cash books, abstracts and store registers. At the level of the DDO the system facilitates the DDO to get the latest information on the sanctioned amount as well as the amounts available and already spent under various schemes to his division and to various offices under his control and register the work to be carried out at various levels under various schemes according to the budget. The DDO can also revise the budget allotment and cancel the approvals for works in case the work has not been initiated, view the details of revenue received and generate the "challans" and vouchers for its own expenditure as well as verify and validate all vouchers before pre-passing. At the level of the BCO, the Budget Controlling Officers in charge are able to enter, allot and monitor the budget for the progress in work received from the government, complete the compilation of accounts, receipts and payments received, support the generation of reports and spreading of information through the web, regarding vouchers, budget and cash books.

j.   **iFWFMS has provided a single window system:** Overall, the iFWFMS system is providing a one single window platform by providing all relevant services to the forest department, and its authorized users at the website. This also involved services for the contractors and suppliers who can now view the status of the passing and payment of their vouchers online and view the details of the cheques prepared or already issued in their favor.

5.5.   Outcomes/Benefits

The iFWFMS practice has led to the following outcomes/benefits as per initial objectives identified:

a.   Enabling transparency

The new system has enabled to bring in much required transparency in the work of the forest department. It has ensured that all budgetary related information and data are visible to the public and outside world towards responsive forestry administration and a transparent, accountable and service oriented working process. The application has   ensured financial discipline that was ardently required for this. Now the forest department spends 100% of the budgetary allocation well within the time frame given. It has ensured that the budget is sanctioned and only after the approval the budget is being released for making payments. The different core processes and their entire lifecycle have been streamlined and are placed online using the work-flow system. Transparency has been introduced into all the processes involved such as budget information as well as availability of

vouchers, cashbooks, revenue receipts, work proposals, expenditure status, all are to be found online for viewing. There is elimination of work duplication and reduction of corrupt practices due to on the spot capturing of work accomplished with geo-mapping matching financial with physical work done.

b. **Enabling Accountability**

The iFWFMS project has enabled to bring in maximum **accountability of every budget process including allocation, spending and returns vis-à-vis forest activities among all layers of officials and divisions. The whole system of the financial** governance management has now been streamlined, automated and made transparent. The financial transaction data is now available on the web to be seen and used for proactive management interventions and public interaction for social audit and shaping the future policy. Post iFWFMS one can now online see the extent of the revenue collected at any given point in time and also the expenditure at any given point, and therefore the application has helped financial rearrangement, depending on the capacity of the frontline stuff to spend and to generate revenue.

c. **Automation of activities & increasing efficiency**

The new system has helped to automate routine and repetitive tasks and thereby increase efficiency and effectiveness of the system by minimizing the manual effort. The integrated work-flow system has eliminated the delays at various levels. For example, the   project has reduced the work of officials and other key stakeholders by eliminating around 75% of manual work such as processing, calculation, documentation, accounting, compilation, reconciliation, reporting, and monitoring. The online and integrated system has facilitated instant generation of monthly account of Department, 155 DDOs and 1500 SDDOs while earlier a grace of 12 days was given. Efficient time management has come as a big boon. With the automatic calculation of voucher amounts, the time earlier needed to complete operations has been minimized, reducing the work load of the officers while at the same time introducing efficiency and effectiveness into the system. The all-round integration of the processes has resulted in the reduction of redundant efforts at various offices, fostered the timely submission of the accounts to all parties concerned, generating more timely payment of manpower and contractors due to the online processing of vouchers.

d. **Ensuring financial discipline & enhancing financial management**

The iFWFMS project has facilitated to create a system that ensures financial discipline and enhanced financial management with far reaching implications in

overall forest management. In terms of cost control and reduction of financial resources spending, the system has helped the department in checking the expenditure of funds without formal allocation. The system does not allow the preparation of any voucher if work and funds have not been sanctioned. The system has checked chances of manipulation by capturing the data at the locality resulting in the timely availability of information at all levels fostering transparency in the approval, sanction and rejection of vouchers. Further the application of GIS and Remote Sensing Technologies is resulting in additional cost saving at all levels. For instance, the manual inspection process has been eliminated in most of the cases of field works and thereby saving resources.

The system in implementation has also eliminated the possibility of expenditure on non- sanctioned work as well as the booking of expenditure in wrong accounts. Another advantage of the system is provision of online pre-passing and passing of vouchers. This has resulted in minimizing the visits of the Range Officers for obtaining the advance for forestry work and follow-up for the passing of the vouchers. This has guaranteed the constant flow of financial requirements to sustain the project.

The project is providing a simple and cost effective solution. From the user perspective   the application has been found simple as a service oriented architecture whereby the user only requires a low end PC and an Internet in order to acquire access to the services. The cost effectiveness is also evident in the in-house resource use as much practicable avoiding capital expenditure on hardware or software.

e. **Improving capacity of the department & capabilities of staff:** The new integrated facility has helped to improve capacity of the forest department and enhance capabilities   of the staff and officials with ICT support in order to manage administrative and   operational works better. The automation of financial accounting has led to systematic,   error free and live maintenance of accounts of Range and DFO[8] officers. On account of the online and integrated system, monthly account closing can be done instantly. Earlier it used to take 15 days.

The project has enhanced efficiency and manpower productivity. Performance level of staff and officials has increased with greater outcome. Time saved is time invested in value additions. The application has triggered proactive governance. The provision for online mashing and analysis of the transaction data related to various entities and processes generates several analytical reports which are used for forecasting the requirements of funds, avoiding mismanagement,

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[8] DFO is District Forest Officer

pendency and other problems in the initial stages. This is helping the authorities in taking timely, preventive and corrective action.

The system has helped administrators to effectively plan and administer the works and budget. For instance, the department budget making exercise has become much easier and efficient with ready data available. The time process for budget preparation for a financial year has gone down to less than 6 months. The online analytical reports are helping the government, the forest department management at different levels and the community to know gaps and shortcomings and thereby take focused and corrective interventions. The ability has also increased to compare the physical progress made with the financial spending as the biggest achievement by using the remote censoring technology with the satellite images produced.

6.   Issues/Challenges faced during implementation

The iFWFMS project, as much at it looks innovative and far reaching, had its own share of challenges in effective planning, framework design, implementation and achieving anticipated outcomes as desired by stakeholders. The challenges were mountainous due to existing wide gaps in forestry works operations, maintenance, execution and management.

a.   Multiple schemes, programmes and activities

One key challenge while implementing the system was how to incorporate more than 60 different schemes, undertaking various activities, works and projects in remote areas in to the new integrated system. The gargantuan task was effective execution and monitoring of various forestry works as well as the transparent utilization of financial resources.

This was overcome with multiple meetings with stakeholders, experts meeting, discussion with layers of officials, technical-administrative team meetings on overcome the issues in integrating the diversity of programmes and activities. Mapping and framework development was key to systematizing the tasks in hand towards a new system.

b.   Widespread geographical diversity of forestry works

The widespread geographical dispersal of forest activities in remote locations and harsh

conditions was both a planning and operational challenge. The issue was to integrate the existing hardships in forestry works that are carried out at numerous site and remote locations having no proper infrastructure or banking facilities necessitating use of services of the local casual labor. In such cases the payment system was daily

cash based system as the workers included the tribal and forest dwellers who are directly depended on forestry related employment on day to day basis. One strategy towards this was classification of operations and management into various districts / circles. The new system has integrated the circle/district specific needs of forestry works operation and management tasks. The system took care of the layers of operations and people responsible and solutions required for front-end and back-end management.

c. Departmental resistance to a new system

Prior to the implementation of iFWFMS in 2009 and in the initial years there was great resistance and many doubts on the system. The challenge was to discourage the negative tendencies, encourage and motivate the staff and officials about the well-being of the new system and its effectiveness in enhancing their capabilities and skills and improve their working abilities. The challenge was to bring down the old regulative measures that were highly non-productive and non-cooperative. This was overcome with many motivational meetings, workshops, orientation programmes with mid and low level staffs and handholding support to run and operate the new system.

d. Data transfer

Another challenge identified until recently was of data transfer. The field data collection and its smooth transportation to the data centre were difficult in the absence of an effective network and connectivity provisions. This was overcome gradually by the department establishing its own networks supported by wireless and broadband network which was integrated from the interior areas to the district headquarters and finally reaching up to the state headquarter.
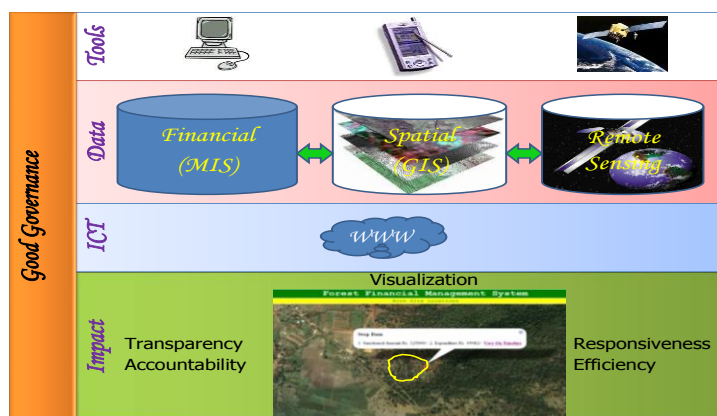
e. Power scarcity

One persisting challenge until recently was of power scarcity especially in remote locations that caused much troubles in running the systems including connectivity. Gradually, this problem is being solved by installing solar panels in forest offices in different administrative locations. By now solar systems are being erected and all

wireless networks are being made solar driven, and all range offices solar power driven.

f. Storing the huge data

An additional problem faced was storing the huge data in the absence of a data centre of its own. Subsequently this challenge was addressed by creating server facilities at the state headquarter of the department.

g. Training & capacity building

One of the biggest challenges was training and capacity building of the frontline staff in new digital devises and applications including in Personal Digital Assistance (PDA), a GPS facilitated devise. Training and capacity building was the most difficult aspect since the forest guards are 12th passed and do not have exposure to IT. This challenge was overcome by providing multiple training sessions, till the staff felt good enough to handle the new system.

h. Different stakeholders, diverse needs

The project involved multiple stakeholders. The challenge was developing capacities and understanding of the other stakeholders including the general public to the technocrats, decision makers, managers - all of their requirements being different. These stakeholders had their doubts, being different in nature, and bringing them all together was a very difficult thing. The strategy adopted to overcome this included provisioning quick problem solving mechanism, encouraging queries and issues, stakeholder timely meet and putting in place an efficient coordination mechanism to constantly address needs of stakeholders.

7. Key Lessons

The iFWFMS project and its study bring out key lessons for learning and parameters for future reference in such endeavors:

a. **Streamlining a major governance area like the forestry department is a real possibility with right kind of ICT approach and programme design and implementation.** This calls for accepting the current challenges and issues as they exists and making the next moves in designing solutions and programmes. In case of the iFWFMS, the Madhya Pradesh Forest Department did adequate mapping and understanding with analysis of existing problems in departmental activities. The analysis of the functioning of the department and the challenges and issues revealed that all the activities of the department can easily be monitored and expedited by efficient handling of the works, accounts and related activities. All this helped to incorporate more than 60 different schemes, undertaking various activities, works and projects in remote areas in to the new integrated system. It has covered the

State level Districts, 16 Forest Circles, 62 Forest Divisions, 150 Sub-Divisions, 765 forest ranges, 1500 sub-ranges, and 7056 beats.

b. **An e-governance practice like iFWFMS is a certain possibility and reality to ensure transparency, accountability and efficiency in a critical department like forest department.** This feasibility has been ensured through online registration, correction and approval of various forestry works, through head-wise online budget allotment and receipt allocation by the government to each department unit. The single window platform provided by iFWFMS has ensured that relevant services, information, data, stakeholders are connected to one single website and online process.

c. **It is very much possible to devise or replicate such an e-governance application** that makes indispensable to facilitate all departmental related information and data for consumption and review by the wider public and stakeholders for wider purposes. Such an e-governance application design can be scaled up and replicated to suit the needs of other departments like rural development, water shed management as such a system with unique features simulates real life functioning of a typical government department.

In the case of iFWFMS, the compilation of work and revenue expenditure is being standardized through online preparation, examination, passing and pre-passing of various types of transactions including vouchers. Post new system data management is being made easier with work and activity related data being captured at the source of work. Further, the new system has enabled that transactions are automatically updated in various registers which are maintained for the purpose of record keeping.

d. **A project like iFWFMS demonstrates that ICT can deliver holistic and integrated e-governance services** especially for complex tasks such as forest management which involves activities like budget and receipt allocation, expenditure, revenue, physical and financial monitoring of forestry works while making use of the capabilities of diverse technologies like MIS, satellite imagery, remote sensing and GIS.

The new system has enabled to bring in much required transparency in the work of the forest department while ensuring that all budgetary related information and data are visible to the public and outside world towards responsive forestry administration and a transparent, **accountable** and service oriented working process. The different core processes and their entire lifecycle have been streamlined and are placed online using the work-flow system.

e. **The iFWFMS application demonstrates a live model of applying ICTs for better financial governance management,** a critical domain of e-governance efforts in India

vis-à-vis rising corruption index. With such an application financial discipline can be achieved along with having responsive governance and getting rid of redundancy within the administrational process. In case of iFWFMS, the process of financial streamlining has been successfully established by connecting than 300 Sub Division officers, 200 Drawing and Disbursal Officers and 3 budget control authorities. The new system has helped to streamline the expenditure and revenue processes to the tune of rupees 200-500 crores annually.

f.   **As in similar e-governance efforts, the success of an iFWFMS patterned application lay in better inner coordination between the staff and officials, and political and administrative support.** In case of iFWFMS, the project involved multiple stakeholders whose concerns, need, anxieties, apprehensions, expectations were different. The project coordination was much decentralized to engage the multiple stakeholders from time to time. The coordination between the administrative and technical teams was much   streamlined to ensure that the features of the new system incorporate the need and expectations of the diverse stakeholders.

8.   Methodology adopted for case writing

The project adopted the case study method. This involved the following key steps:

- Determining and defining the research questions
- Selecting the case
- Data collation and analysis
- Steps and techniques for data collection including interview and open discussion
- Field visit and information / data collection
- Evaluation and analyzing data
- Final preparation of the report.

9.   References

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Project Fact Sheet

1.	**Project Name**	**Integrated Forestry Works & Financial Management System (iFWFMS)**
2.	**Project launched**	01.04.2009
3.	**Coverage**	The forest area of the State is 94689.38 sq. km constituting 30.17% of the geographical area of the State and 12.44% of the forest area of the country. All the 155 Drawing & Disbursing Officers (DDOs) and 1500 Sub-DDOs have been covered in the 50 districts of the State.
4.	**Services offered**	G2G & G2B services
5.	**Uniqueness**	The project is also unique in fulfilling the intentions of RTI Act 2005.
6.	**Technology specifics**	technologies (like Web, MIS, GIS, Remote Sensing, PDA, Solar Power etc.)