

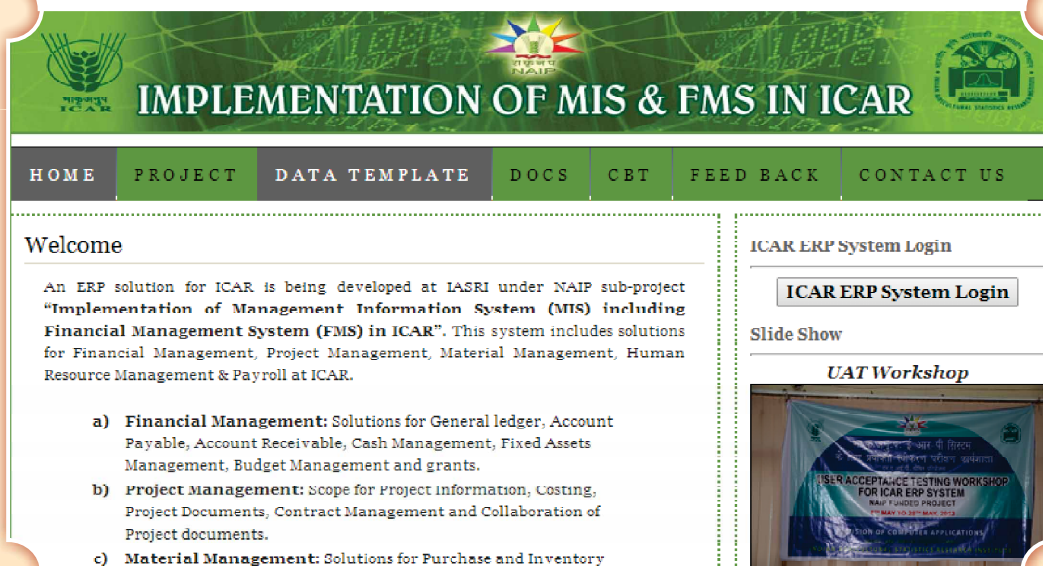


# FINAL REPORT



National Agricultural Innovation Project  
(Indian Council of Agricultural Research)

## IMPLEMENTATION OF MANAGEMENT INFORMATION SYSTEM (MIS) INCLUDING FINANCIAL MANAGEMENT SYSTEM (FMS) IN ICAR



Indian Agricultural Statistics Research institute  
Library Avenue, Pusa, New Delhi-110 012  
www.iasri.res.in  
2014

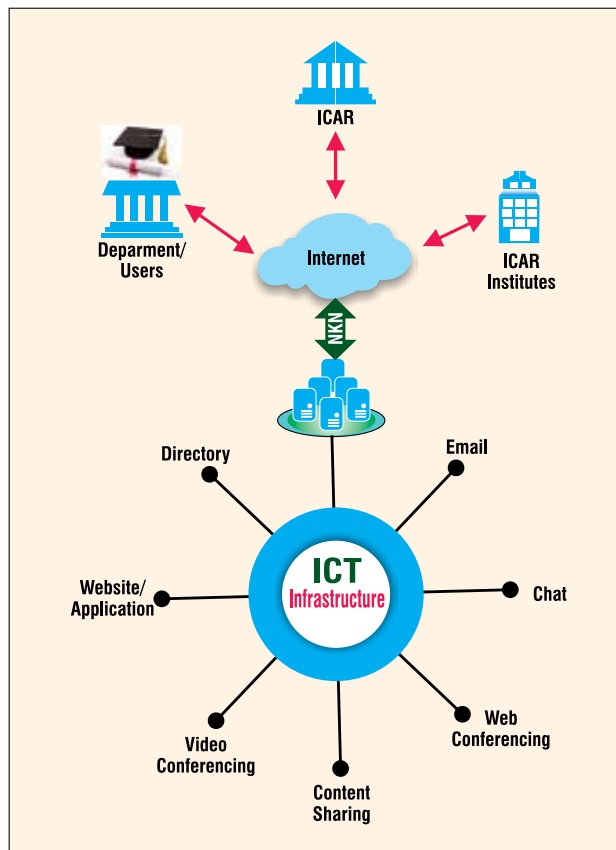


## FINAL REPORT

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### Implementation of Management Information System (MIS) including Financial Management System (FMS) in ICAR



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## FOREWORD

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ICAR is mainly a research organization and research work is carried out in ICAR institutes spread across the Country. Administrative and Financial support and effective monitoring of Projects are essential to achieve the intendant objectives of agricultural research education and extension in the country.

The project entitled “Implementation of Management Information System including Financial Management System in ICAR” is envisaged to facilitate efficient and effective planning and management of resources namely Human Resources, Financial, Assets and Projects through customization of Enterprise Resource Planning (ERP) solution. The solution has been developed in consultation with the business core groups through discussions, interactions, meetings and workshops. The software ICAR-ERP, is the product that ensures to bestow impressive strategic, operational and information-related benefits to ICAR in long run. It helps to capture information in structured format, enforce validation checks for accuracy and facilitate accurate and faster retrieval/ access of information for planning and decision making. Second component of the project includes establishment of ICT Infrastructure and Unified Messaging solution for 25000 personnel & Web Hosting solution for ICAR institutions. This facility is being established at IASRI to provide the facility of hosting the websites/ web applications developed by different institutes of ICAR and for co-locating the application specific servers along with Storage Area Network (SAN).

This ICAR- ERP solution is expected to be an important milestone towards achieving e-governance across all ICAR institutes in the areas of Financial Management, Project Management, Procurement & Inventory Management, Human Resource Management and Payroll. It will lead to increased organizational efficiency, productivity and transparency in the business process.

Support from NAIP, ICAR HQ and ICAR institutes are deeply acknowledged. To realise the full benefits of ICAR-ERP, institutional support are essential towards change management and continuous use for the longer period.

I hope these systems will go long way towards enhancing capability of agricultural research management and strengthening communication among all the ICAR institutes.



**(U.C. Sud)**  
Consortium Leader



## P R E F A C E

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The unprecedented growth of information and communication technologies (ICT) driven by microelectronics, computer hardware and software systems has influenced all facets of computing applications across organizations. Simultaneously the functional environment in the organizations is becoming increasingly complex with functional units requiring more and more inter-functional data flow for decision making, timely and efficient procurement of required items, management of inventory, financial accounting, human resources and distribution of resources and services. In this context, management of organizations needs efficient information systems to improve competitiveness by better logistics, efficiency and timeliness. It is universally recognized by organizations that the capability of providing the right information at the right time brings tremendous rewards to organizations in a global competitive world of complex business practices. At the same time, functional quality improvement has a lot to do with the integration by managing the flow of data across an entire organization. This leads to a more efficient, streamlined and cohesive set of business process units such as finance, accounting, purchasing and distribution, inventory management, strategic policy planning and development, project management, training and human resource and so forth. Enterprise Resource Planning (ERP) systems have surfaced in the Management Information Systems market to address all these functionalities. ERP systems are also designed to address the problem of fragmentation of information or “islands of information” in an organization. They promise to computerize an entire business with a suite of software modules covering activities in all functional areas of an organization and thus is a desirable and critical link for enhancing integration between all functional areas within the organization, and between the organization and its partners. Enterprise Resource Planning systems, bestow impressive strategic, operational and information-related benefits to an organization. A typical ERP system integrates all of the organization’s functions by allowing the modules to share and transfer information freely. In addition, all information is centralized in a single relational database accessible by all modules, eliminating the need for multiple entries of the same data. It is the accelerating pace of business and the corresponding quickening of the pace of change itself that led to conceiving the idea of looking at developing an ERP system for Indian Council of Agricultural Research (ICAR) which can integrate the various functions into one complete system to streamline processes and information across entire ICAR, can provide a shared database that supports multiple functions used by different functional units and at the same time can also offers some degree of synchronized reporting and automation.

NAIP funded project “Implementation of Management Information System (MIS) including Financial Management System (FMS) in ICAR” was proposed to take up the tough and challenging task of developing and implementing an ERP system for ICAR, a research organization where the processes and functions are quite different from other organizations. Another component “To develop ICT Infrastructure and Unified Messaging & Web Hosting Solution for ICAR” was made part of this project in 2013 to meet the objective of providing the

efficient collaboration among ICAR personnel through Unified messaging and dissemination of scientific /research/technological/educational/ extension information through hosting of web sites and applications.

To meet the above objective, ICT Infrastructure has been created at IASRI. It meets the international standard of Data Center Tier II specifications with adherence to ISO 27001, ITIL and TIA 942 standards. The computing environment consists of 448 cores computing with 150TB storage space which will enable the high speed of computing / processing of data. In the software component Microsoft Exchange Mail server, WINDOWS and LINUX OS along various Databases (MSACCESS, MYSQL, SQL SERVER etc). Keeping the ultimate task of providing ICAR with an efficient and successful ERP system, ICAR- ERP has been developed and made operational in twenty-eight (28- 6 large, 14 medium and 8 small) institutes till June 2014. All the remaining institutes (small) are planned to be completed by December 2014.

We take the opportunity to sincerely thank the Director (Finance), Shri Devendra Kumar, to conceptualize and formulate this sub-project and making all the initial efforts. The National Directors, NAIP, Dr. Bangali Baboo and Dr. D. Rama Rao and National Coordinators of NAIP Component-I, Dr. N. T. Yaduraju and Dr. P.S. Pandey are deeply thanked for their active support, cooperation and critical monitoring of the project without which, the success of the sub-project was not possible. We are thankful to the mission leaders Dr. M.M. Pandey and Dr. N.S. Rathore, Deputy Director Generals (Engg.) of ICAR, for being the driving forces of the sub-project. We thank Dr. R.C. Agrawal (Registrar, PPVFRA, India) and Dr. Anil Rai (Head, CABiN, IASRI)for presiding over the various technical committees of the sub-project and navigating it in the right direction. We are sincerely thankful to the strong support and valuable guidance rendered by Secretary, DARE and D.G. ICAR, Dr. S. Ayyappan, Financial Advisor, ICAR, Shri P.K. Pujari and Secretary, ICAR, Shri Arvind R. Kaushal. Implementation of this sub-project was not possible without the support and direction of Directors of IASRI, Dr. V. K. Bhatia and Dr. U.C. Sud. We thank all the Directors of the Partner Institutes of the sub-project and the Directors of various ICAR institutes who have cooperated in the implementation of this sub-project. Sincere thanks are due to the Core Team members of this sub-project who have contributed a lot in the entire journey of this sub-project. Special thanks are due to Shri. Sanchal Bilgrami, Director (Finance) NAIP, Shri Kumar Rajesh and Shri G. Harakangi, Deputy Secretaries (NAIP) for their tireless efforts and help. We wish to acknowledge and thank the help and cooperation of the entire administrative, financial and other staff of NAIP, ICAR and partner institutes for making all efforts for success of this sub-project.

**Project Team**

**New Delhi**

**June 2014**

## सारांश

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भारतीय कृषि अनुसंधान परिषद में “वित्तीय प्रबंधन प्रणाली ( एफ.एम.एस. ) सहित प्रबंधन सूचना तंत्र ( एम.आई.एस. ) का कियान्वयन” नामक परियोजना भारतीय कृषि नवीन्मेषी परियोजना के अन्तर्गत वित्तपोषित है। इसका प्रारम्भ अप्रैल 2010 में हुआ और इसे जनवरी 2012 में आई.ए.एस.आर.आई. में विस्थापित किया गया। इसके 5 अन्य सहयोगी संस्थान हैं – राष्ट्रीय डेरी अनुसंधान संस्थान, करनाल, केन्द्रीय मात्स्यिकी शिक्षा संस्थान, मुंबई, केन्द्रीय समुद्री मात्स्यिकी अनुसंधान संस्थान, कोच्ची, केन्द्रीय पटसन एवं समवर्गीय रेशा अनुसंधान संस्थान, कोलकाता और राष्ट्रीय कृषि अनुसंधान प्रबंध अकादमी, हैदराबाद ।

इस परियोजना के अन्तर्गत एन्टरप्राइज रिसोर्स प्लानिंग ( ई.आर.पी. ) सिस्टम का विकास किया गया जो कि भा.कृ.अ.सं. के सभी संस्थानों में चरणवार कार्यान्वित किया जा रहा है। यह एक संस्थान के समस्त क्रियात्मक क्षेत्रों की गतिविधियों को कवर करते हुए सॉफ्टवेयर मॉड्यूलों के सूट के साथ सम्पूर्ण बिजनेस को कम्प्यूटरीकृत करता है। इस तरह यह एक संगठन के भीतर तथा संगठन एवं उसके पार्टनरों के बीच सभी कार्यात्मक क्षेत्रों के बीच एकीकरण को बढ़ाने के लिए एक बांछनीय एवं महत्वपूर्ण कड़ी है।

भा.कृ.अ.प. को दक्ष एवं सफल ई.आर.पी. सिस्टम उपलब्ध कराने के कार्य को ध्यान में रखते हुए भा.कृ.अ.प.– ई.आर.पी. विकसित किया गया है तथा उसका क्रियान्वन भा.कृ.अ.प. के 28 बड़े संस्थानों में आरम्भ हो गया है। वेतन एवं पेंशन, अनुदान एवं बजट, आपूर्ति चेन प्रबन्धन, मानव संसाधन एवं परियोजना प्रबंधन, 5 प्रमुख कार्यात्मक क्षेत्रों में सिस्टम की एकीकृत प्रक्रियाएँ चलाई जा रही हैं ।

इस परियोजना के अन्तर्गत भा.कृ.अ.प. के लिए यूनिकाइड कम्प्यूनिकेशन का विकास भी किया गया है। इसके अन्तर्गत वेबसाइट/वेब एप्लीकेशन की होस्टिंग का प्रावधान है एवं भा.कृ.अ.प. के सभी कर्मचारियों को ICAR domain पर e-mail की सुविधा प्रदान की जायेगी।

इस सिस्टम का समुचित उपयोग प्रयोक्ता के हाथ में है तथा उनका सहयोग, ज्ञान, योग्यता इस सिस्टम की सफलता के लिए महत्वपूर्ण है।





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## Executive Summary

The sub-project “Implementation of Management Information System including Financial Management System in ICAR” (Sub-project code: **30(9)/2006/RFPS/NAIP/O&M**) was sanctioned in April 2010 and later transferred to IASRI, New Delhi in January 2012. This is a project being carried out under National Agricultural Innovation Project of ICAR which is funded by the World Bank. The Consortium leader of project is Director, IASRI, New Delhi and five ICAR institutes (NAARM, CIFE, CRIJAF, CMFRI and NDRI) have been involved in the project as partners to achieve the objectives of the project.

This project was envisaged and started with single objective: “To implement a robust and flexible ERP system which includes solution for Financial Management, Project Management, Material Management, Payroll & Pension and Human Resource Management at ICAR.” IASRI on behalf of Indian Council of Agricultural Research (ICAR), New Delhi signed a contract agreement with IBM India Private Ltd. for customization of Oracle ERP (Oracle R12.13) as per ICAR requirements and implementing the robust and flexible FMS & MIS System for ICAR HQ and its institutes. Later in April 2013, another objective “To develop ICT Infrastructure and Unified Messaging & Web Hosting Solution for ICAR” was added to the project. This objective targets to address the long-due requirement of having a unique e-mail id with ICAR domain for each ICAR personnel and provide a unified messaging solution. This will also provide the facility of hosting the websites /web applications, developed at different institutes of ICAR and facility for co-locating the application specific servers will be also be developed along with Storage Area Network (SAN) facility for hosted applications.

The project started with requirement gathering and analysis after the contract was signed with IBM India Pvt. Ltd in January 2012. Based on requirement analysis, AS-IS documents which covered the current process followed in ICAR institutions in the functional areas of Financial Management, Project Management, Supply Chain Management, Human Resource Management and Payroll and TO-BE documents that covered the mapping of current processes in different functional areas in Oracle application were prepared in discussion with core team and partner organizations. The implementation was planned to be carried out in two Phases: Phase-I (A), Phase-I (B) and Phase-II. Phase-I (A) consisted of six large institutes & IASRI, Phase-I (B) of 13 medium institutes and Phase-II consisted of remaining 90 small institutes of ICAR. Development of the ICAR-ERP solution started with the designing of its technical architecture in discussion with technical committee. System and networking requirements for end-users at institutes were finalized and communicated to ICAR institutes. Different instances for Production, Development, Test and Training are planned. Production instance is designed in fail-over safe mode. Database and Application servers are designed in Active-Passive mode. ICAR-ERP solution is developed by customizing Oracle R12.13 ERP solution as per ICAR policies and requirements. This was carried out in consultation with the business core groups through discussions, interactions, meetings and workshops. Once the solution was developed, to have the feedback of the core business groups and partner institutes, User Acceptance Testing workshops were organized at IASRI to demonstrate, test and evaluate the functionalities of the developed solution. The feedbacks from UAT workshops were incorporated in the system. For the procurement of production hardware (servers, storage and associated peripherals) M/s Megaheartz Pvt. Ltd. was issued the notification of award through NCB process and the instances are configured at IASRI.

Data digitization activity, being a crucial and integral part of ICAR-ERP implementation, was started in various Phase-I (A and B) institutes. Through National Competitive Bid process, bids and contract was signed with M/s Karvy India Pvt. Ltd. Data digitization activity constituted of two parts: (1) Digitization of data from various hardcopy sources (registers, files, books etc.) in each institute and (2) Verification of the digitized

data by the institute officials. The data was to be entered in Excel templates designed for different functional areas. In this regard, sensitization workshops were organized at partner institutes and were attended by their personnel as well as the personnel from NBPGR, New Delhi; IARI, New Delhi; CSSRI Karnal, NBAGR Karnal, DWR Karnal, DMR Solan and CPRI, Shimla and they were sensitized for MIS/FMS implementation along with detailed discussion on data digitization templates. Sensitization workshop was also organized at IASRI. Karvy completed the data digitization work in Phase-I (A and B) institutes. Digitized data was verified at the respective institutes by institute officials. The verified data was compiled and delivered by Karvy to IASRI. Data was cleaned and uploaded to production instance using PL/SQL scripts. Data during the cut over was collected and uploaded in system. In the meantime, Karvy initiated the data digitization activity in Phase-II institutes. Data digitization activity has been completed for 57 institutes from Phase-II institutes.

ICAR-ERP is hosted on IASRI website and can be accessed through URL: <http://icarerp.iasri.res.in> and it can also be visited through <http://www.iasri.res.in/misfms/>. The system has integrated processes being carried out in the five major functional areas: Payroll and Pension, Grants and Budgeting, Supply Chain Management, Human Resources and Project Management. IBM and IASRI project team members imparted end-users trainings for institute personnel in their respective functional areas before the implementation of ICAR-ERP. Strategies regarding cutover & migration of data and onsite & offsite support were planned. Operationalization of ICAR-ERP solution started from February 2104 in phased manner. System has been implemented in five institutes: IASRI, IARI, NAARM, CIFE and NDRI from 1st February 2014. The system is implemented in ICAR HQ and IVRI, Bareilly on 25th February 2014. The implementation for thirteen (13) institutes under Phase-I (B) has been done in 1st and 3rd week of April 2014. Implementation for Eight (8) institutes of Phase II has been started from third week of June 2013. Implementation for remaining institutes of Phase –II will be completed by December 2014. The implemented ICAR-ERP will provide a centralized data management system across all ICAR institutes and finally create an IT environment in ICAR across all disciplines.

During the course of the project activities, a number of documents were published in the form of Application System Requirement Specification (SRS) (AS-IS), Application Customization Requirements Specification (CRS) (TO-BE) documents, Operational Manuals, Technical Reports as well as media product in the form of Computer Based Training (CBTs) for using ICAR-ERP have been developed. A paper from the project was presented in a national conference in 2014. A website was developed <http://www.iasri.res.in/misfms/> for this project which acts as a repository of all the documents, training manuals, CBTs, excel templates data digitization and other project related information. As any typical ERP system, ICAR-ERP also integrates all of the organization's functions by allowing the modules to share and transfer information freely. In addition, all information is centralized in a single relational database accessible by all modules, eliminating the need for multiple entries of the same data and since ICAR-ERP is a uniform platform it ensures that there is no discrepancy in the information that is processed. The project also rendered the capacity building for ICAR personnel by organizing various trainings before implementation of ICAR-ERP so that the solution can be used efficiently and effectively. The software ICAR ERP, developed in the project, is the product that ensures to bestow impressive strategic, operational and information-related benefits to ICAR in long run.

Presently, different e-mail services are being used by ICAR institutes which are provided by private service providers and the web hosting of applications is being done using NIC, ERNET and private service providers. Another objective of this project is to equip the ICAR institutes with a Unified Mail Messaging and Web Hosting Solution leading e-communication (e-mail, video-conferencing) among ICAR personnel and facility for hosting Web sites/ Web Applications. This facility will provide an environment for co-locating the application specific servers at IASRI which are presently located at the institute's level and have been lacking compliance to

standard practices along with Storage Area Network (SAN) facility for hosted applications. For this second and equally important component of this project i.e., ICT Infrastructure and Unified Messaging & Web Hosting Solution for ICAR, bids were invited as per International Competitive Bidding (ICB) process. Bid evaluation was carried out and final approval was obtained in February 2014. Contract agreement was signed with M/s Wipro Solution. Facility has been established at IASRI. ICT infrastructure has been designed in such a way so as to provide redundancy for Power supplies, Controllers, CPUs to support 100% uptime experience. It meets the international standard of Data Center Tier II specifications with adherence to ISO 27001, ITIL and TIA 942 standards. The solution is based on Structured, Scalable & Resilient Network Architecture. The data center contains servers which are connected to high performance LAN Switches, for processing millions of packets per second, depending on Users & Application and its contents. The computing environment consists of 448 core computing with 150TB storage space which will enable the high speed of computing / processing of data. Virtualization will aid in segmentation of computing for resource allocation and making available the need based storage for different applications. In the software component Microsoft Exchange Mail server, WINDOWS and LINUX OS along various Databases (MSACCES, MYSQL, SQL SERVER etc) are available in the Data Center. The services offered are Mail Messaging and hosting of Web sites/Applications.

To sustain the developed solutions under this project and to keep them in a successfully operational mode in future, a modern and well established ICT infrastructure is a necessity. To monitor and manage the project operations, under this project as a part of the ICT infrastructure development, resources, Network Operating Centers, well equipped labs with video conference facility and auditorium have been established and made operational by carrying out civil work.

## Part-I: General Information of Sub-project

1. **Title of the sub-project: Implementation of Management Information System (MIS) including Financial Management System(FMS) in ICAR**
2. **Sub-project code: 30(9)/2006/RFPS/NAIP/O&M**
3. **Component: I**
4. **Date of sanction of sub-project: 1<sup>st</sup> April, 2010**  
(Project shifted to IASRI 19<sup>th</sup> January, 2012)
5. **Date of completion: 30<sup>th</sup> June, 2014**
6. **Extension if granted: Yes, from 31<sup>st</sup> March 2014 to 30<sup>th</sup> June 2014**
7. **Total sanctioned amount for the sub-project: Rs. 7212.56000**
8. **Total expenditure of the sub-project: Rs. 1575.79596 (Till Mar, 2014)**
9. **Expenditure at IASRI (Approx.) from April 2014 to June 2014: 2990.00000**
10. **Total Expenditure till June 2014 (Approx.): 4565.79596**
11. **Consortium leader: DDG (Engg.), ICAR New Delhi till (February 2014); Director(IASRI) (w.e.f March 2014)**
12. **List of consortium partners:**

	Name of CPI/ CCPI with designation	Name of organization and address, phone & fax, email	Duration (From-To)	Budget ( Lakhs)
CPI	Dr. V. K. Bhatia, Director, IASRI(Till 14th Feb, 2013)	Indian Agricultural Statistics Research Institute (IASRI), New Delhi-12. Tel:25841479 vkbhatia@iasri.res.in	Till 14th Feb, 2013	7070.98887
	Dr. A. K. Choubey, CPI, Head (CA),	Indian Agricultural Statistics Research Institute (IASRI), New Delhi-12. akc@iasri.res.in	w. e. f 15th Feb, 2013	
CCPI1	Sh. K. P. Nath, CCPI, F&AO	Central Research Institute for Jute & allied Fibres (CRIJAF), Nilganj, P.O., Barrackpore, Kolkata-743101. Tel. 033-25356124 kalipadanath@gmail.com		29.19000
CCPI2	Sh. A.V. Josph, CCPI, SF&AO	Central Marine Fisheries Research Institute(CMFRI), PB NO 1603, Ernakulam North, PO Cochin-682018. Tel: 0484-2394972 avjoseph2009@yahoo.in		25.17352
CCPI 3	Sh. J. K. Kewalramani CCPI, JD (Admn) & Registrar	National Dairy Research Institute(NDRI), Karnal-132001 Tel-0184-2272392, 2259022 jkk@ndri.res.in		31.41015
CCPI 4	Sh. Suresh Chandra, CCPI, CF&AO	Central Institute of Fisheries Education(CIFE), Seven Bunglalow, Andheri (West), Mumbai. Tel: 022-26361006 sureshchandra@cife.edu.in		30.17526
CCPI 5	Sh. Sanjay Kant, CCPI, JD (Admn) & Registrar	National Academy of Agricultural Research Management (NAARM), Rajendra Nagar, Hyderabad Tel-040-24015913, 24581555 registrar@naarm.ernet.in		25.62220

CPI-Consortia Principal Investigator; CCPI-Consortia Co-Principal Investigator

**13. Statement of budget released and utilization partner-wise ( ` in Lakhs):**

	CPI/ CCPI Name, designation & address)	Total budget sanctioned	Fund released (up to closing date)	Fund utilized (up to closing date)
CPI	Dr. V.K. Bhatia, Director,(Till 14th Feb, 2013) Indian Agricultural Statistics Research Institute, 101, TAC Building, IASRI, New Delhi-12. Tel:25841479	7058.28887	3179.83856	1518.22488
	Dr. A.K. Choubey, CPI, Head (CA), 106, Computer Division Building, IASRI, New Delhi-12 akc@iasri.res.in			
CCPI1	Sh. K. P Nath, CCPI, F&AO Central Research Institute for Jute & allied Fibres, Nilganj, P.O., Barrackpore, Kolkata-743101 Tel. 033-25356124 kalipadanath@gmail.com	29.19000	11.49000	8.25000
CCPI2	Sh. A.V. Jospeh, CCPI, SF&AO Central Marine Fisheries Research Institute, PB NO 1603, Ernakulam North, PO Cochin-682018 Tel: 0484-2394972 avjoseph2009@yahoo.in	25.17352	11.49000	3.72352
CCPI 3	Sh. J.K. Kewalramani CCPI, JD (Admn) & Registrar National Dairy Research Institute, Karnal-132001 Tel-0184-2272392, 2259022 jkk@ndri.res.in	31.41015	19.93000	26.29996
CCPI 4	Sh. Suresh Chandra, CCPI, CF&AO Central Institute of Fisheries Education, Fisheries Univesity Road, Seven Bunglalow, Andheri (West), Mumbai. sureshchandra@cife.edu.in Tel: 022-26361006	30.17526	11.49000	11.66934
CCPI 5	Sh. Sanjay Kant, CCPI, JD (Admn) & Registrar National Academy of Agricultural Research Management, Rajendra Nagar, Hyderabad registrar@naarm.ernet.in Tel-040-24015913, 24581555	25.62220	11.66220	10.62826
<b>Total</b>		<b>7212.56000</b>	<b>3245.90076</b>	<b>1578.79596</b>

CPI-Consortia Principal Investigator; CCPI-Consortia Co-Principal Investigator

As the system implementation for ICAR-ERP started from February 2014, hence major payments from IASRI was due from April 2014 onwards. The ICT component also started in March hence all related payments are met in the quarter April to June 2014.



## Part-II: Technical Details

### 1. Introduction

The world has been undergoing another revolution, the biggest and most complex since the industrial revolution. The information technology has revolutionized the way of living and conducting business. Organizations are experiencing a brutally competitive business environment and in order to survive, businesses have to embrace technology. Historically, in an organization, functional areas maintained independent information systems. These systems were not designed to interface with one another and the information exchange was often paper based. Simultaneously the functional environment in the organizations is becoming increasingly complex with functional units requiring more and more inter-functional data flow for decision making, timely and efficient procurement of required items, management of inventory, accounting, human resources and distribution of resources and services. In this context, management of organizations needs efficient information systems to improve competitiveness by better logistics, efficiency and timeliness. It is universally recognized by organizations that the capability of providing the right information at the right time brings tremendous rewards to organizations in a global competitive world of complex business practices. At the same time, functional quality improvement has a lot to do with the integration by managing the flow of data across an entire organization. This leads to a more efficient, streamlined and cohesive set of business process units such as finance, accounting, purchasing and distribution, inventory management, strategic policy planning and development, project management, training and human resource and so forth. To address all these functionalities, Enterprise Resource Planning (ERP) systems surfaced in the Management Information Systems market, which covered the cross-functional coordination and integration in support of the production process. ERP solution computerize an entire business with a suite of software modules covering activities in all functional areas of an organization and thus is a desirable and critical link for enhancing integration between all functional areas within the organization, and between the organization and its partners.

It is the accelerating pace of business and the corresponding quickening of the pace of change itself that led to conceiving the idea of developing an ERP system for Indian Council of Agricultural Research (ICAR) which can integrate the various functions into one complete system to streamline processes and information across entire ICAR, can provide a shared database that supports multiple functions used by different functional units and at the same time can also offers some degree of synchronized reporting and automation. This project is an attempt to equip the world's one of the largest agricultural research organization with the cutting edge technology to compete the fiercely competitive world of research. To achieve success in this attempt, the project aimed at developing and providing an ERP solution to ICAR and as a result ICAR-ERP is developed. As any typical ERP system, ICAR-ERP also integrates all of the organization's functions by allowing the modules to share and transfer information freely. In addition, all information is centralized in a single relational database accessible by all modules, eliminating the need for multiple entries of the same data and since ICAR-ERP is a uniform platform it ensures that there is no discrepancy in the information that is processed. The software ICAR-ERP, developed in the project, is the web based application/ product that ensures to bestow impressive strategic, operational and information-related benefits to ICAR in long run.

Web applications increasingly seek to interact with resources from multiple administrative domains. Presently, ICAR institutes are either using their own Email services, NIC, ERNET or private service providers. Similarly Web hosting of applications is being done using NIC, ERNET and private service providers. Another objective of this project was to equip the ICAR institutes by replacing the different e-mail services and web hosting service providers with a Unified Mail Messaging and Web Hosting Solution leading to an efficient e-communication



(e-mail, video-conferencing) among ICAR personnel and facility for hosting applications. A Uniform Mail Messaging Solution enables cross-site messaging and aims at providing a means for a resource owner to consent to cross-origin information retrieval and support origin independent messaging. This solution will provide an environment for co-locating the application specific servers at IASRI which are presently located at the institute's level and have been lacking compliance to security & standard practices along with Storage Area Network (SAN) facility for hosted applications. To sustain the developed solutions under this project and to keep them in a successfully operational mode in future, a modern and well established ICT infrastructure is a necessity. To address the needs of the ICT resources, well equipped labs, video conference facility, auditorium, network operating centers have been established and made operational.

## 2. Overall Sub-project Objectives

The NAIP sub-project "Implementation of Management Information System (MIS) including Financial Management System (FMS) in ICAR" has the following objectives:

1. To implement a robust and flexible ERP system this includes solution for Financial Management, Project Management, Material Management, Payroll & Pension and Human Resource Management at ICAR.
2. To establish ICT Infrastructure and Unified Messaging & Web Hosting Solution for ICAR.

To achieve the above set objectives, there were two solutions which were conceived to be developed and implemented across ICAR. The details of these two solutions are given as under:

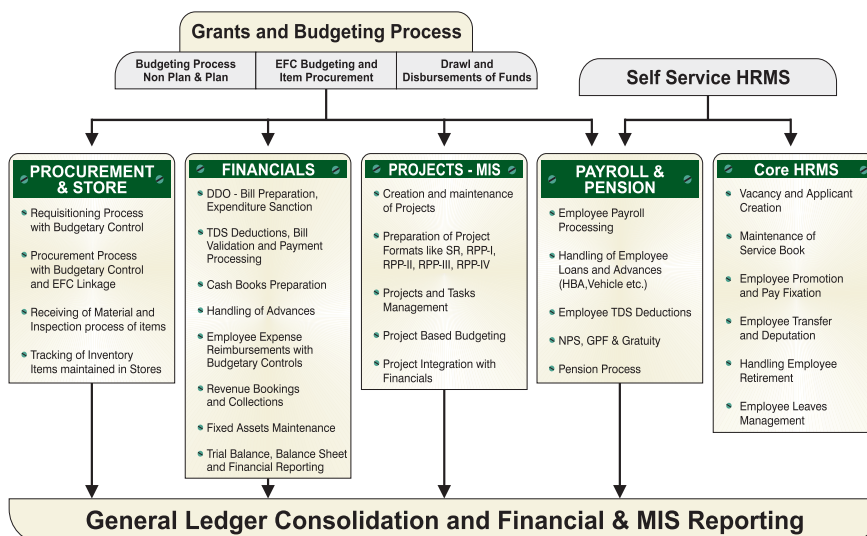
### 2.1 Solution in Scope of ICAR-ERP System (Objective 1)

First objective targeted to design and develop a robust ERP solution for ICAR which is described following in brief:

#### ICAR-ERP Modules

- **Grants and Budgeting (G&B):** This covers all the processes related to budgeting process (Plan & Non Plan), EFC budgeting and item procurement, draw and disbursement of funds.
- **Financials:** This covers all the processes related to General Ledger, Accounts Payable, Accounts receivable, Cash management, Fixed Asset Management and Budget Management.
- **Project:** All project related activities starting from status report creation, RPPI, RPPII, RPPIII and RPPIV along with their evaluations, ratings, approval and budgetary and activity management is covered.
- **Procurement & Stores:** This includes indent creation with approval process, procurement process with EFC linkage, receiving of material & inspection, and process of item tracking from inventory maintained in stores.
- **Core Human Resource:** This includes recruitment, employee details, promotion and pay fixation, retirement, transfers, accounting of leaves, maintaining and updating service books.
- **Self Service:** This allows an employee to apply leave, update personal information, tax declaration, submit APAR and NOC's .
- **Payroll:** Employee payroll, earnings, deductions, handling of loans and advances,
- Calculation of arrears, GPF, pension payment, retirement benefits computation, income tax calculation and deductions.
- **Pension:** All pension processes such as retirement initiation, sanction, authorization and generation of statutory pension forms is captured in the system.

## ICAR-ERP Solution Footprint



### Implementation Plan

ICAR-ERP solution is planned to be implemented in two Phases: Phase-I (divided into two parts: A and B) and Phase-II (Annexure-2). In the NAIP period till June 2014, as per project progress, implementation is planned for Phase I (Part A and B). Phase-I (A) consists of six large institutes and IASRI from Phase 1 Part B where system is implemented from February 2014. Phase- I (B) comprises of 13 medium institutes where implementation is planned for April 2014. Implementation for Phase –II will be completed by December 2014. Implementation for Eight (8) institutes of Phase II has started from June 2014.

There is appropriate plan for development, training, testing and production instances to run the system. Implementation plan has one month onsite support followed by 35 month off site support available to institutes through a central help desk. Partner organizations have been part of this project to help in requirement analysis and study of different process in different institutes working for different commodities.

### Partner Organizations

- National Dairy Research Institute (NDRI), Karnal
- Central Institute of Fisheries Education(CIFE), Mumbai
- Central Marine Fisheries Research Institute (CMFRI), Kochi
- National Academy of Agricultural Research Management (NAARM), Hyderabad.
- Central Institute for Jute and Allied Fibers (CRIJAF), Kolkata

### 2.2 Solution in Scope for ICT infrastructure and Uniform Mail Messaging and Web Hosting (Objective 2)

ICT Infrastructure and Unified Messaging & Web Hosting Solution have been established by Indian Council of Agriculture Research (ICAR) at Indian Agricultural Statistics Research Institute (IASRI), New Delhi for ICAR Institutes and their regional stations. This solution will facilitate ICAR to deliver the unified communication and web hosting services to its stakeholders.

## Services to be offered

The solution will offer a series of services listed below to facilitate efficient exchange of information among ICAR personnel:

- Unified Communication including:
  - ◆ Messaging (Webmail and POP)
  - ◆ Phonebook
  - ◆ Calendar
  - ◆ Schedule meetings
  - ◆ Chat
  - ◆ Presence
  - ◆ Web Conferencing
  - ◆ Video Conferencing including Presentation Sharing
- Virtual Machine & Data Storage
- Web Hosting

## 3. Sub-project Technical Profile

Objective -wise work plan is given below:

### Objective – 1

**1. To implement a robust and flexible ERP system which includes solution for Financial Management, Project Management, Material Management, and Human Resource Management & Payroll at ICAR.**

#### Activities

1. **Project Initiation.**
  - Signing of Contract Agreement with IBM India Pvt. Ltd.
  - Constitution of Business Core Groups.
2. **Requirement Gathering.**
  - Requirement analysis was carried out through series of meetings, workshops and discussions with users of partner institutes and business core groups.
3. **Application System Requirement Specification (SRS) (As-Is Document)/ Application Customization Requirements Specification (CRS) (To-Be Document) Preparation.**
  - Based on requirement analysis, Documents were prepared and finalized in discussion with the business core groups
4. **Application Software Design/ Technical Architecture Design.**
  - Technical Architecture Design along with hardware configuration (number of servers, system software) required for FMS & MIS system was finalized.
  - Network (bandwidth) and system configuration to use the solution at end-users level was finalized.
5. **Supply and Installation of Oracle R12.13 ERP Solution.**
  - Signing of Contract Agreement for procurement of Oracle ERP solution.
  - Installation of Oracle for development and production instance.
6. **Supply and Installation of Servers for hosting the solution.**
  - Seven instances were configured for production, development, training and testing. Cooling and UPS solution was installed.
7. **Solution Design.**
  - Module-wise (Five) solution was designed and discussed with business core groups.

**8. System Integration, Testing and Demonstration using Test Instance, Test Scenario and Test Scripts****9. User Acceptance Testing (UAT) of Customized Solution.**

- Test scripts were created for UAT.
- UAT was carried out in two phases (Core groups and End- users).

**10. Data Digitization, Compilation and Verification for Phase-I (A and B) institutes.**

- Preparation of Request for Proposal (RFP).
- National Competitive Bidding Document preparation, publishing and evaluation.
- Award of Contract.
- Data Digitization activity was carried out in a custom application and excel templates.

**11. Data Conversion and Migration for Phase-I(A) institutes.**

- Cleaning and integration of data at IASRI.
- Scripts for migration of data.

**12. Preparation of Operational Procedures Manuals.**

- Operational Procedures or Training manuals for different modules were prepared.
- Computer based Training Modules for different process areas were developed.

**13. User Training.****14. Configuration and Deployment of solution on production server.****15. Cut Over and Implementation of the solution in Phase –I (A) institutes.**

- Implementation started in Phase 1A , six institutes along with IASRI from February 2014.

**16. Onsite Operational Support.**

- More than one month of on-site support for system handling in the institutes from February 2014.

**17. Data Conversion and Migration for Phase-I(B) institutes.**

- Cleaning and integration of data at IASRI for 13 institutes.
- Scripts for migration of data.

**18. Cut Over and Implementation of the solution in Phase –I (B) institutes.**

- Implementation started in Phase 1B, thirteen institutes from April 2014.

**19. Onsite Operational Support for Phase I(B) institutes.**

- More than one month of on-site support for system handling in the institutes from April 2014.

**20. Implementation of the solution in Phase-II institutes and onsite-support.**

- Implementation started in Eight (8) institutes of Phase II after migration of data.
- Training and onsite support is being provided from June 2014.

**Objective – 2****2. ICT Infrastructure and Unified Messaging & Web Hosting Solution for ICAR.****Activities****1. Preparation of Request for Proposal (RFP).**

- RFP were prepared as per ICB Format.

**2. International Competitive Bidding Document preparation, publishing, evaluation and Award of Contract.**

- RFP invited.
- World Bank approval for the same.
- Evaluation of bids carried out.
- Contract signed.

- 3. Establishment of ICT Infrastructure.**
  - Data center infrastructure was created.
  - Domain name registration
  - IP Configuration
  - Delivery of Hardware/ Software
  - Installation of Hardware
  - Installation of Software
- 4. Implementation of Unified Messaging & Web Hosting solution.**
  - Operationalization of system at IASRI.

### Expected Output

1. Standardized ERP solution for five functional areas in all ICAR institutes.
2. Centralized Unified Messaging solution for ICAR.
3. Web Hosting infrastructure for IT applications in ICAR.
4. Capacity building for using ERP solution.
5. Technical Documents (Reports, training manuals, CBTs)
6. Databases of projects, human resource, inventory, financials.

### Expected Outcome of the Project

1. Standardization of business processes and uniform adoption.
2. Automation of process workflow.
3. Integration and sharing of databases.
4. Uniform reporting.
5. IT empowerment.
6. Efficient e-communication (e-mail, video-conferencing) among ICAR personnel.
7. Improved planning of resources.
8. Transparency in the business processes.

### Monitoring Indicators

1. Number of institutes where the solution is implemented.
2. Number of personnel using the solution.
3. Number of workshops organized.
4. Number of trainings organized and personnel trained.
5. Number of technical documents published.
6. Number of transactions per day.
7. Infrastructure facilities developed.

## 4. Baseline Analysis

The current situation in ICAR is as mentioned below:

- Manual System of carrying out the business processes.
- Standalone software being used for carrying out business process in payroll generation.

- Web based information system being used for personnel management (PERMISNet) and project management (PIMS ICAR).
- Different e-mail solution provided by private service providers being used by institutes.
- Web hosting of applications being done using NIC, ERNET and private service providers.
- Environment for co-locating the servers at the institute's level lack compliance to standard practices.
- Integrated and shared databases not available.
- Inter-operability issue in sharing of databases.
- Reporting not streamlined, uniform and automated.
- Inconsistency and discrepancies in information being maintained at various locations.
- Consolidation and retrieval of information time and efforts taking.
- Repetitive efforts in serving multiple queries of similar nature.
- Duplication of efforts in maintaining similar records/data/information at various locations.
- Lack of business process automation.

**After implementation, ICAR-ERP, Unified communication solution will provide the followings:**

- Internal procedure simplification, much easier information retrieval, improved performance management, and increase in work efficiency.
- Streamlining the flow of information and eliminating the unwanted flow of information.
- Secured workflow.
- Re-engineered business processes in five functional areas across ICAR institutes.
- An efficient, streamlined and cohesive set of business process units such as finance, accounting, purchasing and distribution, inventory management, strategic policy planning and development, project management, training and human resource in ICAR.
- An integrated and shared database that supports multiple functions used by different functional units and at the same time will also offers some degree of synchronized reporting and automation also eliminating the need for multiple entries of the same data.
- A uniform platform ensuring that there is no discrepancy in the information that is processed and that ensures to bestow impressive strategic, operational and information-related benefits to ICAR.
- The unified messaging and web hosting solution developed will provide centralized organizational e-mail facility.
- It will also provide the facility for hosting applications to ICAR institutes.
- A facility for co-locating the application specific servers will be also be developed along with Storage Area Network (SAN) facility for hosting the applications.
- A step towards office automation.

## 5. Research Achievements with Summary

### Background

This project was initiated in NAIP in April 2010 and later assigned to IASRI in January 2012. During NAIP, Request for Proposal (RFP) document containing MIS/FMS requirement of ICAR was prepared and bids were invited. Bids were evaluated and IBM India Pvt. Ltd. was identified for customization of Oracle ERP as per ICAR requirements. A contract in this regard was signed between IBM and IASRI on behalf of ICAR on 19th January 2012 for development and implementation of MIS/FMS for ICAR institutions.

Website was prepared for the project (<http://iasri.res.in/misfms>) and all necessary documents were made available from this site.

### 5.1 ICAR-ERP

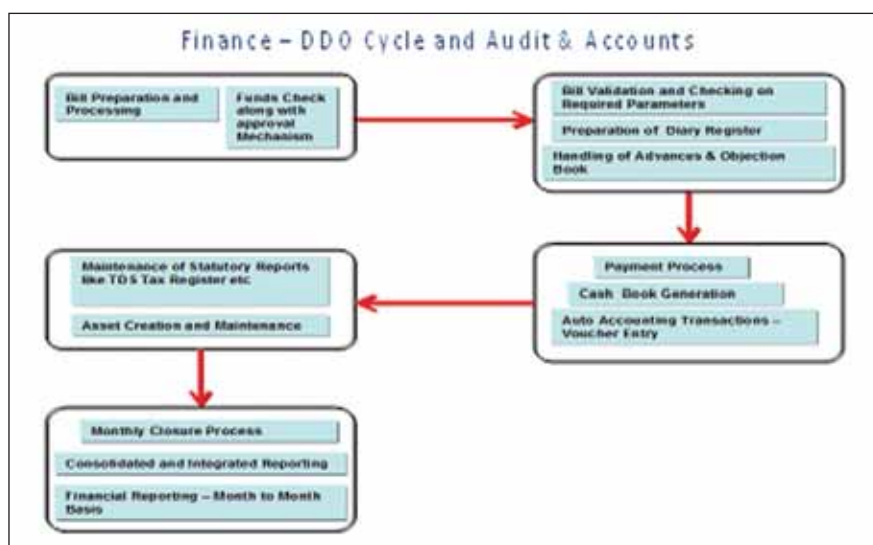
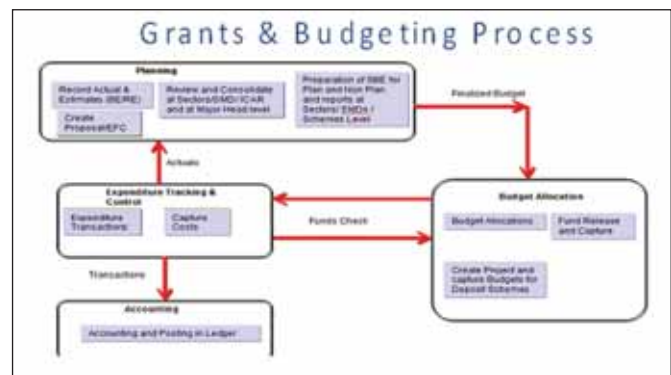
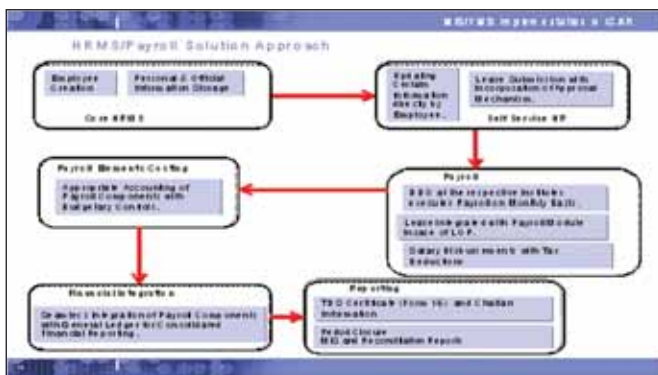
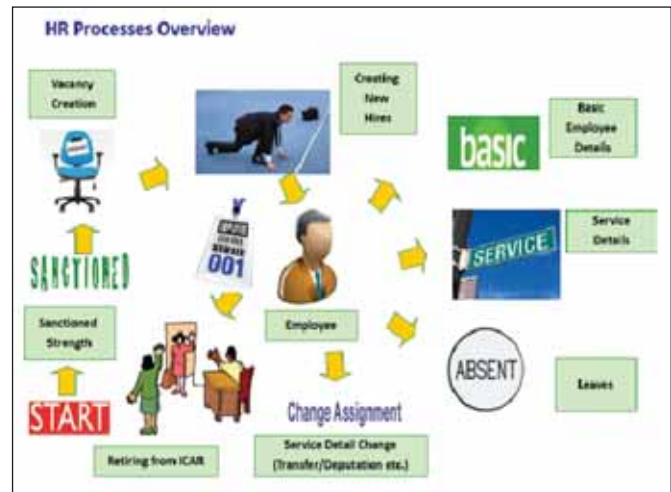
The objective was to implement the robust and flexible FMS & MIS System which includes solution for Financial Management, Project Management, Material Management, and Human Resource Management & Payroll at ICAR. This aims to replace all legacy systems used by ICAR with a single tightly Integrated Oracle Application R12.13 Environment. The project aims at substituting ICAR ERP System across 110 Institutes in India. As part of this new system implementation, ICAR is on the way to standardize and simplify on a common business platform to eliminate cost duplication, reduce complexity and be more efficient in a centralized environment. Centralized core policy and content management capabilities will help to align requirements of multiple organizations with a superset of operational systems and standardized reporting to remove duplication of systems and provides common standards for performance reviews.

### Requirement Gathering and Analysis

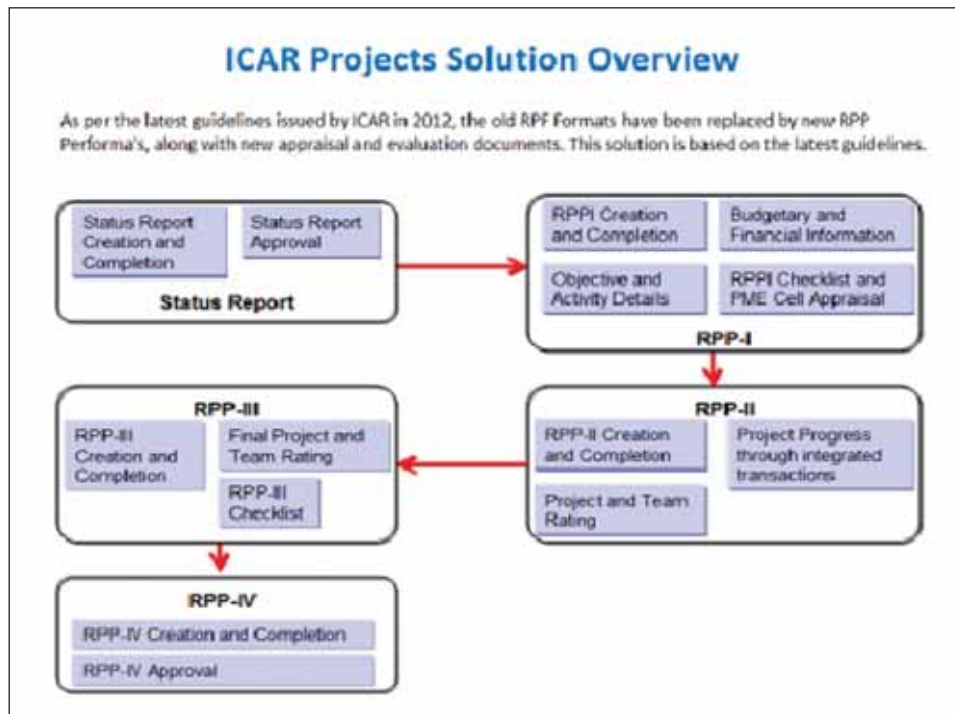
Requirement analysis is important and essential for any system development. For requirement study, core team was identified at ICAR HQ in each functional area of Finance, Human Resource, Project and Procurement. Requirement study was carried out in collaboration with ICAR HQ and partner institutes. Meetings were held with business core group members to study the processes and information flow in all the functional areas. Requirement analysis workshop was organized in four functional areas (finance, procurement, payroll & pension and human resource) at IASRI from 30th April to 5th May 2012. This workshop was attended by 120 personnel. Based on the System Requirement study, AS-IS documents which covered the current process followed in ICAR institutions were prepared in the functional areas of Financial Management, Project Management, Supply Chain Management, Human Resource Management and Payroll. TO-BE documents covering mapping of current processes in different functional areas in Oracle application were prepared in discussion with core team and partner organizations.



Process flow diagrams for the five functional area modules are given below:





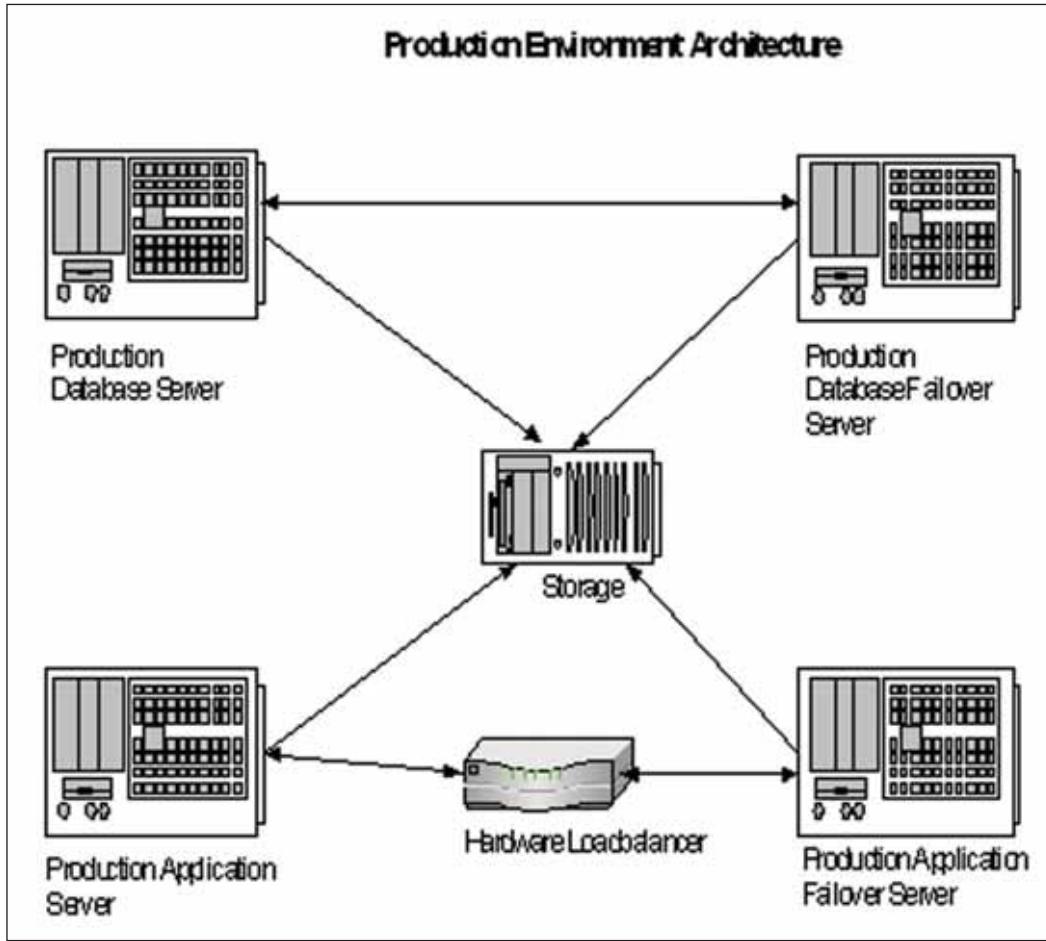


### Application Software Design and Development

**Technical Architecture:** Technical architecture of the solution was designed in discussion with technical committee. System and networking requirements for end-users at institutes were finalized and communicated to ICAR institutes. Different instances for Production, Development, Test and Training are planned. Production instance is designed in fail-over safe mode. Database and Application servers are designed in Active-Passive mode.

Production hardware (servers, storage and associated peripherals) bid was invited through National Competitive Bidding (NCB) process. Bids were evaluated and notification of award was issued to M/s Megaheartz Pvt. Ltd. Contract agreement was signed. The instances are configured at IASRI.

Oracle ERP is an integral component of solution. Oracle Applications Release R12 has been implemented. Contract agreement was prepared in the format of World Bank for single source procurement. Many rounds of meetings conveyed between Oracle India and IASRI to finalize the terms and conditions. Proposal was sent to World Bank and ICAR HQ for approval. On getting the approval the contract agreement was signed with M/s. Orbit India Pvt. Ltd. to whom Oracle has authorized as partner for supply of licenses for this project. IASRI procured the licenses for all modules as per requirements provided. Modules, currently scoped under the project, are based on the requirements as provided by ICAR during the requirement gathering and analysis.



The following modules have been procured from Oracle for FMS & MIS systems:

No.	Module Name
<b>1</b>	<b>Oracle Financials</b>
1.1	General Ledger
1.2	Accounts Payable
1.3	Accounts Receivable
1.4	Cash Management
1.5	Fixed Assets
<b>2</b>	<b>Oracle Grants</b>
2.1	Grants Proposal & Budgeting
2.2	Grants Accounting
<b>3</b>	<b>Oracle Projects</b>
3.1	Oracle Project Management
3.2	Oracle Project Costing
3.3	Oracle Project Collaboration
3.4	Oracle Project Contracts
<b>4</b>	<b>Purchase &amp; Inventory</b>
4.1	Oracle Purchasing
4.2	Oracle Inventory Management
4.3	Oracle Service Procurement for Oracle Purchasing
<b>5</b>	<b>Oracle Human Resources (HR)</b>
5.1	Oracle Self service Human Resources

### Application Software Design

Developing ICAR-ERP solution, Oracle R12.13 ERP solution was customized as per ICAR policies and requirements. The solution was developed in consultation with the business core groups through discussions, interactions, meetings and workshops. Five functional modules of Oracle Applications have been customized as required for FMS and MIS system for ICAR Head Quarter & its Institutes. User Acceptance Testing workshops were organized to demonstrate, test and evaluate the functionalities of the developed solution to the core group members and personnel from partner organizations. Feedbacks from UAT sessions were incorporated in the system.

### Data Digitization

Digitized data from different documents (service book, assets register, pay bill, pension registers etc.) are major source of information in the ERP solution. National Competitive Bidding (NCB) process was followed to invite the bids for keying in the data from different sources in excel formats. Four bids were received, evaluated and notification of award was issued to M/s Karvy India Pvt. Ltd. Contract agreement was signed.

Data digitization activity constituted of two parts:

- 1) Digitization of data from various hardcopy documents (registers, files, books etc.) in each institute.
- 2) Verification of the digitized data by the institute officials. M/s Karvy has completed the data entry work is working for data entry for Phase I (A and B) and Phase-II institutes. The data is being entered in the excel templates. These excel templates were prepared in each functional areas as per their data requirements. The templates for each functional area were divided into two broad categories namely, Master Data template and Configuration Data Template. The details of the templates developed for each functional area in two categories (Master and Configuration) is given below:

#### HR module

S. No.	Template Name	S. No.	Template Name
1.	Personal Details and Qualification	l)	Casual Leave
a)	Employee Personal details	m)	Restricted Leave
b)	Qualification Details	n)	Earned Leave current year
c)	Addresses and Phones	o)	Earned Leave Balance
2.	Dependent & Nominee	p)	Half Pay Leave Current Year
3.	Assignment History (Previous Employment Details including Pay band, grade pay and duration of service)	q)	Special Casual Leave
4.	Leaves Details	5.	SITs
a)	Maternity	a)	APAR(appraisal)
b)	Paternity	b)	Disciplinary action
c)	Child Care	c)	C&A verification
d)	Study	d)	Sessions attended/conducted
e)	Adoption	e)	Past Service Details
f)	Sabbatical	f)	Journals and publications
g)	Special Disability	g)	Higher Studies
h)	Dies Non	h)	Government Quarter Allocation
i)	LTC Encashment	i)	Employee Achievements
j)	LTC Current slab	j)	Application to other Employment
k)	Leave not due		

**HR Pensioner**

S. No.	Template Name	S. No.	Template Name
1.	Personal Details and Address	3.	Assignment History (Previous Employment Details including Pay band, grade pay and duration of service)
a)	Employee Personal details	a)	Service in ICAR
b)	Addresses and Phones	b)	Service before ICAR
2.	Dependent & Nominee		

**HR Pensioner**

S. No.	Template Name	S. No.	Template Name
1.	Master Data Format	b)	Bonus
a)	CGHS	c)	Capital Gains
b)	Deduction and contribution	d)	Cash handling Allowances
c)	Employee pay scale and Base salary	e)	Children Education
d)	GPF_NPS	f)	Conveyance Allowances
e)	Income Tax Employee & Pensioner	g)	Deputation Allowances
f)	Pension	h)	Employee Pay Earning
g)	Previous Employment	i)	Leave Encashment
2.	Configuration Data	j)	Leaves
a)	Employee payment method	k)	Miscellaneous Allowances
b)	Institute Payment Method	l)	Overtime Allowance
3.	Transaction Data	m)	Special Allowances
a)	Advances and recovery		

**Projects**

S. No.	Template Name	S. No.	Template Name
1.	Master Data	a)	Approval Matrix
a)	Funding Agencies	3.	Open Transaction Data
b)	Other Project Information	a)	Budget Information
2.	Configuration items	b)	Project Information

**Purchase & Store**

S. No.	Template Name	S. No.	Template Name
1.	Master Data	b)	Sub inventory stores
a)	Item master Template	3.	Open Transaction Data
2.	Configuration Items	a)	On hand Item inventory stock
a)	Purchase Requisition Approval		

### Purchase & Store

S. No.	Template Name
	Finance
1.	Master data
a)	FA (Fixed Asset ) Register
b)	Vendor Master
2.	Configuration Item
a)	Bank Template
b)	FA asset allocation
3.	Open transaction
a)	GL Open Balances
b)	Open advances

Institutes of Phase-I were communicated from ICAR top-management and project leader regarding the support and information requirements for data digitization agency. All the Institutes were also communicated for updating the Service Books and Assets records from Secretary (ICAR) so that the updated data could be digitized. Nodal officers were identified at all ICAR institutes for coordinating the data digitization work in Phase-I institutes. A sensitization workshop on Data Digitization was organized at IASRI on 12<sup>th</sup> September 2012. The excel templates for entering the data were discussed and clarified. Similar sensitization workshops were organized at other Phase-I institutes for apprising them about their required involvement/ role in data digitization activity. Data digitization activity has been completed for Phase 1 (A and B) institutes along with 57 institutes from Phase II.

#### Training and Workshops organized

Training of Users and IT staff of ICAR in setting up, implementation, commissioning, use and maintenance of the application software and related products has been an integral part of the project. Providing the capability to successfully manage projects of this complexity and scope and provide ICAR with long-term support has been taken care of with the system implementer. Capacity building of ICAR personnel has been done for taking care of the responsibility of system functionality and integration, ensuring that each component of the overall proposed solution works efficiently with no interface problems.

Sensitization workshops and trainings activities were carried out in collaboration with partner organizations at their respective locations as well as at lead centre. The sensitization meetings/workshops organized at partner institutes were attended by their personnel as well as the personnel from NBPGR, New Delhi; IARI, New Delhi; CSSRI Karnal, NBAGR Karnal, DWR Karnal, DMR Solan and CPRI, Shimla. In total 240 Personnel from different sections of these institutes were sensitized for MIS/FMS implementation along with detailed discussion on data digitization templates. Sensitization workshop organized at IASRI on 25<sup>th</sup> September 2013 was attended by 31 personnel from 15 institutes participated.



User Acceptance Testing (UAT) workshops were organized in IASRI, New Delhi and Phase-I (A) institutes (ICAR HQ, IARI, NDRI, and NAARM). The partner institutes (CMFRI, CRIJAF) participated in these workshops. The schedule of the UAT workshops organized is given below:

### UAT Workshops

Module Name	Type of Activity	Place	Duration		No. of People Attended
			From	To	
Project Module	Workshop	IASRI, New Delhi	08-May-2013	10-May-2013	37
Purchase & Store Module	Workshop	IASRI, New Delhi	13-May-2013	15-May-2013	26
Finance Module	Workshop	IASRI, New Delhi	15-May-2013	18-May-2013	57
HR & Self Service HR Module	Workshop	IASRI, New Delhi	20-May-2013	22-May-2013	43
Payroll and Pension Module	Workshop	IASRI, New Delhi	23-May-2013	25-May-2013	31
Grants and Budgeting Module	Workshop	IASRI, New Delhi	27-May-2013	28-May-2013	25

### Implementation Trainings

Before implementation of the developed system, end-users trainings for institute personnel were imparted. Strategies regarding cutover & migration of data and onsite & offsite support were planned. Training manuals were prepared in different functional areas.



IBM and IASRI project team members provided training to personnel in their respective functional areas. The implementation trainings were imparted at Phase 1(A and B) institutes.



## Implementation of the ICAR-ERP

Methodology plays a key differentiator for such complex projects. Methodology combines training and change management components to foster organizational readiness: ensuring an overall buy in from the key stakeholders to engage in and implement the “to-be” business solution. Training approach emphasizes that knowledge transformation starts from the beginning of the project and continue throughout the pilot and rollout phases of the project. This will ensure that concerned persons become an automatic part of the IT programme.

Implementation solution is driven by an integrated deployment methodology; offering well-established project management and technical delivery methods. These proven methods provide the framework for managing the project team and helping to keep the project on track. IBM’s project management methods address key management concerns and potential impacts to scope, schedule, and cost, and are designed to provide the identified Deliverable Materials aligned to the business requirements.

The consultant IBM has engaged a team of skilled professionals consisting of Project Management; Functional Consultants and Technical Consultants with the right experience profile to ensure a smooth and timely implementation. The key phases of the project are Project Initiation; Analyze and Design; Configure & Build; Integration and Convert; Cutover and Support; and Support Phase. Training program is embedded in its Implementation.

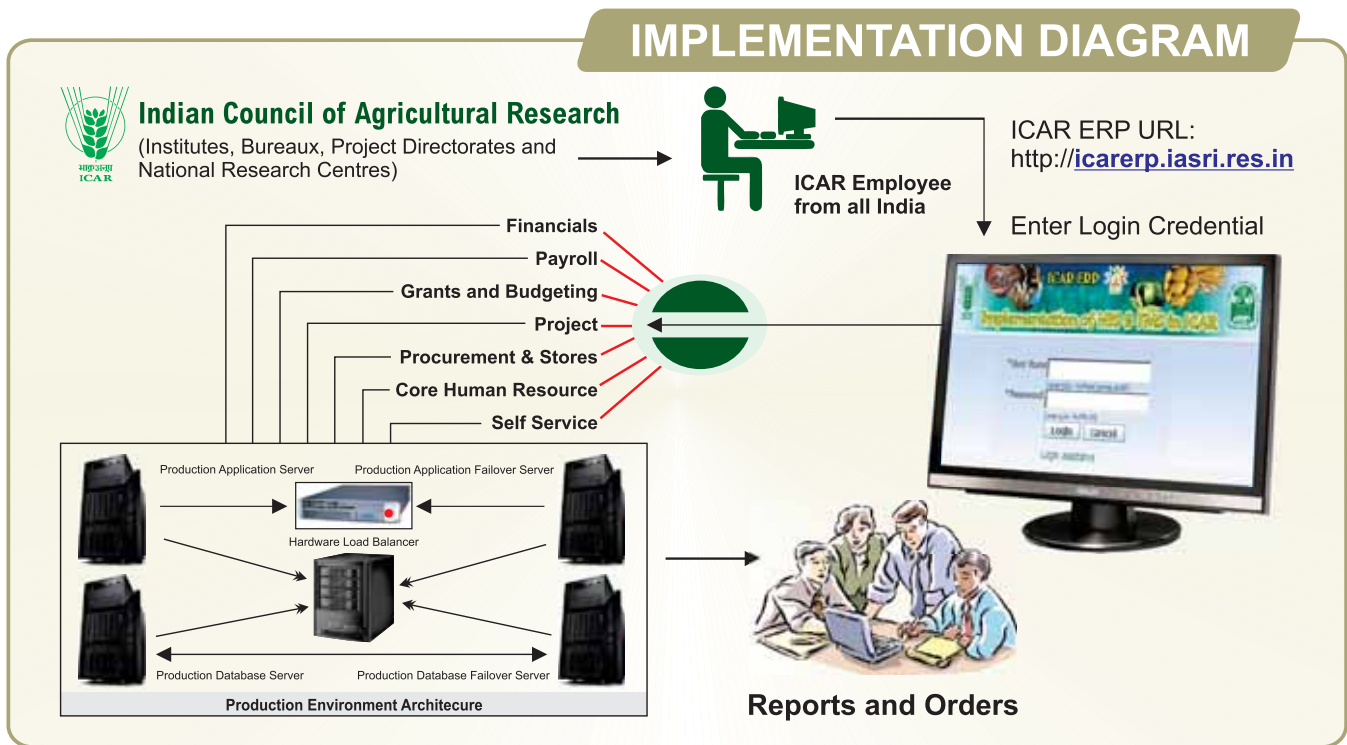
Implementation of ICAR-ERP has been a largely centralized pilot implementation. Digitized data was verified at the respective institutes by institute officials. The verified data was compiled and delivered by Karvy to IASRI. Data was cleaned and uploaded to production instance using PL/SQL scripts. Data during the cut over was collected and uploaded in system. The implementation began at the five Delhi based institutes namely, IASRI,



IARI, NAARM, CIFE and NDRI from 1st February 2014. Implementation extended to the central project office of ICAR, ICAR Head Qtrs. at New Delhi, and IVRI, Bareilly on 25th February 2014. The IBM team completed project initiation, analysis, design, build and integration at these ICAR institutes, working along with the ICAR core team. This central core team has been initially trained in the working of Oracle applications by the IBM project team.

Users access the system through internet with role based access defined in the system.

ICAR-ERP is hosted on IASRI website and can be accessed through URL: <http://icarerp.iasri.res.in> and it can also be visited through <http://www.iasri.res.in/misfms/>.



After implementing the solution in Phase-I (A) institutes, implementation in Phase-I (B) was commenced in the first week of April 2014 and was successfully completed in all the Phase –I (B) institutes by 30th April 2014. IBM team used hub and spoke model for implementation at these medium institutes to cover the entire medium institutes in that various regions. IBM personnel travelled to these institutes to impart user training and execute cutover activities. One month on site support has been provided for each institute, followed by 35 months of post go-live support through a central help desk.

The list of the institutes where implementation has been successfully done along with training details is given in the Table. Numbers represents, number of personnel trained in these institutes in the specified area.

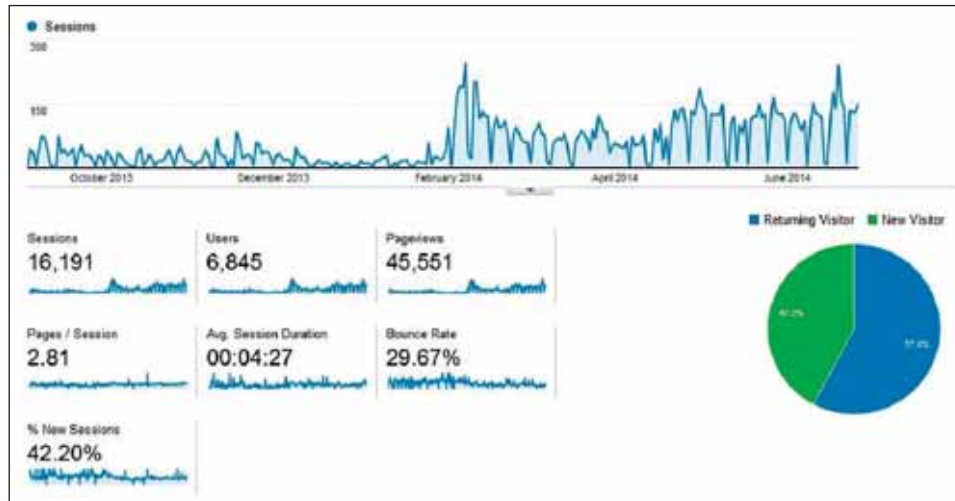


### Number of personnel trained in ICAR Institute

Institute Name	Finance (Audit & Accounts)	Procurement & Stores	HRMS (Personal Dept handling Service Books)	Payroll Salary and Employee Claims)	Projects MIS (Scientists)
PHASE - 1 A					
ICAR-HQ	20	5	10	5	40
IARI (9RS)	40	50	68	50	436
IASRI	5	5	18	7	70
NDRI (ERS+SRS)	20	21	24	22	157
IVRI	30	30	10	25	80
CIFE	35	25	26	10	139
NAARM	11	10	5	2	28
PHASE - 1 B					
IGFRI	9	9	9	2	43
CIAE	20	27	16	2	26
CRIDA	10	7	7	11	60
CMFRI	14	10	7	4	3
CAZRI	35	41	35	5	45
NBPGR	20	10	50	4	50
ICAR-NEH	27	5	5	4	20
CRRRI	28	19	17	3	91
CSWCRTI	10	4	31	10	25
IIHR	19	7	20	19	27
CPRI	43	26	22	5	23
PIU-NAIP	2	2	2		
NBSSLUP	4	4	2	1	25
CIRCOT	5	5	5	2	4

**Google Analytics** gives the picture of implementation. The pictorial representation of the ICAR-ERP website ([www.iasri.res.in/misfms](http://www.iasri.res.in/misfms)) hit counts by Google Analytics on daily basis is given as under showing an increasing trend in hits per day. It shows that during the period October 2013 to June 2014, 16, 191 sessions have occurred on ICAR-ERP. 6, 845 users have used the solution in the period and average session duration has been found to be 4.27 minutes. This shows the hit counts of users who have used IASRI site to reach the ICAR-ERP site. Actual numbers are very high and more than 10,000 users have used the system.

On an average 3000 visitors are using this solution/site every month. It is also observed that after ICAR-ERP started getting implemented, the visits/usage of the solution has shot up exponentially and is a consistent feature.



## 5.2 ICT Infrastructure and Uniform Messaging and Web Hosting Solution

To address the rising requirements of ICAR institutes for online services and at the same time launch of a number of e-Governance and research projects, Data Centre requirements are growing exponentially. Based on the latest cutting edge technology being followed globally, a centralized and well-established Data Center is the requirement of the ICT infrastructure of ICAR. To meet this goal, component of “ICT Infrastructure, Uniform mail messaging and Web hosting services” was added in this project.

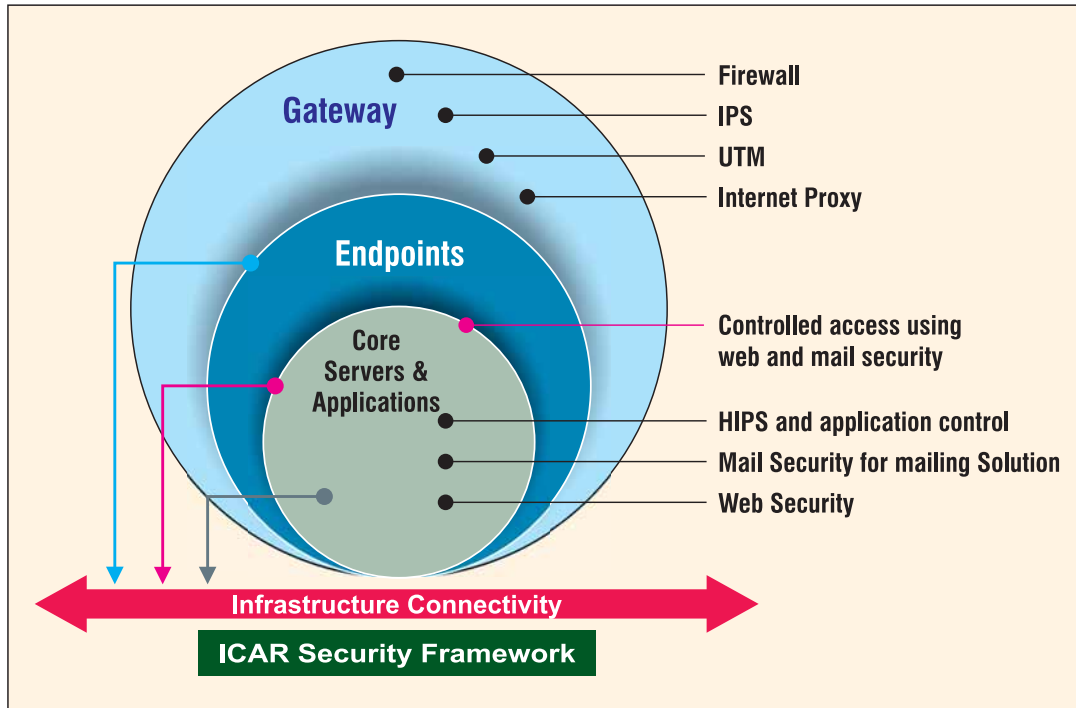
A performance of the application system is one of the important factors in success of the project. For the functional performance requirements of the ICAR-ERP, ICAR requires 98% or more availability of its centralized applications system. This component has solution for uniform e-mail id for ICAR personnel with ICAR domain. Solution has component for hosting Web sites/ Web Applications and collocating the servers for hosting in this facility.

To create this facility, bid document as per International Competitive Bidding (ICB) format was prepared and after approval of World Bank bids were invited for this component. Four bids were received for the same. The voluminous work of bid evaluation was carried out at IASRI and then approval of the same was accorded from World Bank in February 2014. Contract agreement has been signed with M/s Wipro India Pvt. Ltd for establishment and operational support of this facility.

### Technical Architecture

This facility has IT and NON-IT parts, wherein IT part deals with supply of hardware/software and its integration. Installation of hardware, policy formulation, domain name registration and its configuration in the system and then loading and configuration of software as per policy requirements has been done. In the NON-IT part, Data Center environment has been created in Fire safe mode. Setup is done for supply of water chiller based cooling and power supply. ICT infrastructure has been designed in such a way so as to provide redundancy for Power supplies, Controllers, CPUs to support 100% uptime experience. It meets the international standard of Data Center Tier II specifications with adherence to ISO 27001, ITIL and TIA 942 standards. The solution is based on Structured, Scalable & Resilient Network Architecture.





The data center has servers which are connected to high performance LAN Switches, for processing millions of packets per second, depending on Users & Application and its contents.

### Computing Environment

- 448 Core Computing
- 150 TB storage
- Microsoft OS
- Linux OS
- Microsoft SQL DBMS
- MySQL
- Active Directory
- Microsoft Exchange 2013
- Microsoft Lync 2013
- Virtualization
- Switches

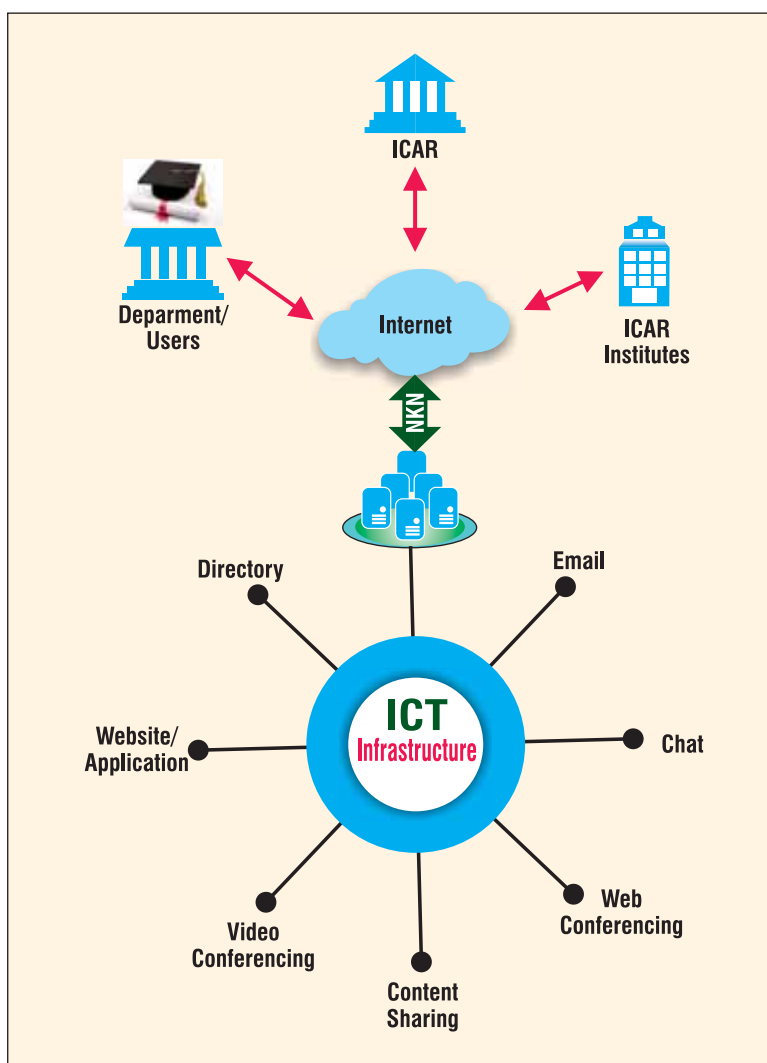
This computing environment will enable the high speed of computing / processing of data. Virtualization will aid in segmentation of computing for resource allocation and making available the need based storage for different applications. Core layer switches 1G/10G/40G enabled module provides easy scalability. Provision for hosting different web applications/web sites developed on WINDOWS and LINUX platforms along with support for various Databases (MSACCES, ORACLE, MYSQL, SQL SERVER etc.) have been made.

The Unified messaging solution is based on Microsoft Exchange Server. The unified communication feature of the solution will help ICAR personnel to stay connected with each other via instant messaging, email, audio/

video calls, persistent chat rooms, on line meeting and presentations for scientific /research/technological/ educational/ extension information exchange. This will help in creating Uniform Email ID of ICAR & its institutes/departments under single ICAR domain, effective communication at individual desktop.

- Unified Communication includes:
  - ◆ Messaging (Webmail and POP)
  - ◆ Phonebook
  - ◆ Calendar
  - ◆ Schedule meetings
  - ◆ Chat
  - ◆ Presence
  - ◆ Web Conferencing
  - ◆ Video Conferencing including Presentation Sharing

The concept diagram to access the Unified Messaging solution is given below:



**Solution Features:** The solution has the following features:

- Scalability
- 24 X 7 Availability
- Interoperability
- Security
- Manageability
- Integration
- Adherence to ISO 27001, ITIL , TIA 942 standards

Other features of the solution includes end-to-end security option with granular traffic control and monitoring, smooth integration, migration, easy & centralized network management and fire protection.

**Benefit:** This will benefit ICAR by providing the following:

- Uniform Email ID of ICAR & its institutes/departments under single ICAR domain.
- Implementation of standardized IT policy and deployment of website/application.
- Secure and reliable IT services and infrastructure on demand.
- Aggregation of IT infrastructure (Hardware, Storage, Networking and Software) and Management Resources.
- Centralized management of IT infrastructure
  - ◆ Dynamic Scalability
  - ◆ Centralized and Simplified Management
  - ◆ Improved Data Quality
  - ◆ Lower Risk of Data Loss.
  - ◆ Service Level Agreements

This will provide the basis towards implementation of standardized IT policy in deployment of website/application and providing secured and reliable IT services/ infrastructure on demand through a centralized management of IT infrastructure (Hardware, Storage, Networking and Software), dynamic scalability, improved Data Quality and lower Risk of Data Loss. The availability of a centrally located repository (consisting of various database, knowledge base and model base developed across ICAR institutes), and interoperability will facilitate the development of value added services as Knowledge Management, Expert Systems, Decision Systems and advisories including forewarning and forecasting models. Unified communication will help in efficient and effective collaboration.

To sustain the developed solutions under this project and to keep them in a successfully operational mode in future, a modern and well established ICT infrastructure is a necessity. To monitor and manage the project operations, under this project as a part of the ICT infrastructure development, resources, Network Operating Centers, well equipped labs with video conference facility, digital boards have been established and made operational by carrying out civil work. Networking was strengthened for IASRI and entire network has been upgraded to Fiber Optics.

## 6. Innovations

Indian Council of Agriculture Research (ICAR) is one of the biggest organization having 110 institutes engaged in research, teaching & training which are spread across different locations in the country. Some institutes have regional stations too which are spread across geographical location. All these institutes undertake research work for different commodities as per their mandate and these are categorized under large, medium, small and very small institutes depending on their size. ICAR has approximately 22000 manpower working under Scientific, Technical, Administrative and Supporting categories. Planning and managing human resource, financial, assets and research projects at such a large scale poses greater challenges to managers and policy planners. In recent time, effective management of all these resources is feasible only with the use of information technology. There is many application software or customized software available for different areas of finance, human resource and inventory management. This application software's caters to specific area and it is not easy to integrate all of these and cross flow of information between different types of software's is also difficult.

Enterprise Resource Planning (ERP) software provides integrated applications for human resource, financial planning, purchasing, inventory management, recruitment etc. The advantage of using ERP software is that all the applications are seamlessly integrated and other applications can be added in future as an extension to the existing system. ERP software is generic in nature and is designed based on the global practices followed in a particular area. This software can be customized according to the need of specific organization and it also facilitates work flow based approval mechanism.

ICAR-ERP, a solution based on Oracle ERP has been customized for ICAR with the objective to enhance its efficiency and introduce best practices in the areas of financial management, human resource management, project management, procurement & stores management, grants & budgeting and payroll. Solution has been developed after requirement study with selected group comprising of representatives from different institutes and business process owners in different areas. ICAR being one of the biggest organization and different hierarchical level for different process made customization of work flow very challenging. After system development, User Acceptance Testing (UAT) session has been carried out and suggestions incorporated in the system. System is implemented on 1<sup>st</sup> February 2014 in five large and medium institutes of ICAR and is available at the address <http://icarerp.iasri.res.in>.

This is one such attempt in any Govt. organization with diverse structure and institutes spread across geographical location. System has taken care of research management which is core component of ICAR institutes. Solution has been designed to capture complete cycle of research project formulation, monitoring, procurement with financial check built in the system and capturing the final outcome of the project. It will create IT awareness and training to institute personnel. It's a complete change management for personnel working in ICAR organization.

Similar to the existing process of various functional areas in ICAR, initially, the existing ICT infrastructure at various ICAR institutes was developed to meet their basic IT needs. The services which are being run using the existing infrastructure are susceptible to security threats, slow speed, and non-conformity to standards and lacks in feature of interoperability. To get away from these threats, ICT Infrastructure and Unified Messaging & Web Hosting Solution have been established by Indian Council of Agriculture Research (ICAR) at Indian Agricultural Statistics Research Institute (IASRI), New Delhi for ICAR Institutes and their regional stations. This solution is one of the components under the project entitled "Implementation of Management Information System (MIS) including Financial Management System (FMS) in ICAR" funded by NAIP.

This ICT infrastructure will provide high availability, quick scalability, efficient management & optimized utilization of resources in ICAR to deliver the unified communication and web hosting services to its institutions.



It is envisioned to provide services for hosting websites and applications relating to information in the areas of education, research, and extension projects of the institutes. This will enable scientist to focus on designing system for delivery of information and services and need not to spent efforts on data management and hosting of application.

## 7. Process/ Product/Technology Developed

### Products Developed

Software product named ICAR-ERP is developed in this project. ICAR-ERP is available at URL: <http://icarerp.iasri.res.in> or [www.iasri.res.in/misfms](http://www.iasri.res.in/misfms).

The product constituted of five modules for different functional areas namely:

- Human Resource Management System
- Project Management System
- Supply Chain Management System
- Payroll and Pension
- Financial Management System including Grants and Budgeting

The system has led to business process automation, standardization, centralized data availability and MIS reporting. ICAR-ERP enables ICAR to enhance its efficiency and introduce best practices in the areas of Financial Management, Project Management, Procurement & Inventory Management, Human Resource Management and Payroll. Financial Management system has solutions for General ledger, Accounts Payable, Accounts Receivable, Cash Management, Fixed Assets Management, Budget Management and Grants. Project Management solution has scope for Project Information, Costing, Project Documents, and Contract Management and Collaboration of Project documents. Material Management has Purchase and Inventory Management solutions. Human Resource module covers Employee information, HR policies, Leave Management, Performance and Appraisal System. Payroll System includes salary, GPF, Pension Payment, Retirement Benefit Calculation and Income tax calculation solutions for all the ICAR employees.



Website for the project is developed with the url: <http://www.iasri.res.in/misfms/>. The website acts as a repository of all the documents, training manuals, CBTs, excel templates data digitization and other project related information. ICAR-ERP can also be accessed through this website using <http://icarerp.iasri.res.in>.



Training Instance | Register | Login

## IMPLEMENTATION OF MIS & FMS IN ICAR

HOME | PROJECT | DATA TEMPLATE | DOCS | CBT | FEED BACK | CONTACT US

### Welcome

An ERP solution for ICAR is being developed at IASRI under NAIP sub-project "Implementation of Management Information System (MIS) including Financial Management System (FMS) in ICAR". This system includes solutions for Financial Management, Project Management, Material Management, Human Resource Management & Payroll at ICAR.

- Financial Management:** Solutions for General ledger, Account Payable, Account Receivable, Cash Management, Fixed Assets Management, Budget Management and grants.
- Project Management:** Scope for Project Information, Costing, Project Documents, Contract Management and Collaboration of Project documents.
- Material Management:** Solutions for Purchase and Inventory Management.
- Human Resource:** Employee information, HR policies, Leave Management, Performance and Appraisal System.
- Payroll System:** Salary, GPF, Pension Payment, Retirement Benefit Calculation and Income tax calculation Solutions for all the ICAR employees.

The implementation of ERP Solution would be for ICAR Head Quarter and its Institutes. Oracle R12 solution, which is a global enterprise system with high level of inbuilt security features, has been identified for implementation of this system. IBM India Ltd. company has been identified as system integrator for studying the requirement of ICAR institutions and customization of Oracle solutions as per ICAR needs and implementation of the same at all the ICAR institutions in two phases.

### ICAR ERP System Login

ICAR ERP System Login

### Slide Show

#### MISFMS Training at Ranchi

Held on 31st Oct 2013

### Announcements

14 September, 2012  
Website for the NAIP funded project MIS/FMS has been developed and hosted at IASRI server at the address (<http://iasri.res.in/misfms/>). All necessary documents will be accessible from this site. विनम्र आभारवाचन।

Design & Developed by:  
Indian Agricultural Statistical Research Institute (IASRI)  
Library Avenue, Pusa, New Delhi-110012  
[iasri.res.in](http://iasri.res.in)

## 8. Patents (Filed/Granted) : NIL

S. No.	Title of Patent	Inventor(s) (Name & Address)	Filed/Published/Granted (No./Date)	Responsible Partner

## 9. Linkages and Collaborations

Collaborations with five ICAR institutes (NAARM, Hyderabad; CIFE, Mumbai; CRIJAF, Kolkata; CMFRI, Kochi; and NDRI, Karnal) and ICAR-HQ were developed for this project. These institutes are called partner institutes and have been involved in carrying out various activities for developing the ICAR-ERP. Linkages with all other ICAR institutes across the country have been established first for data digitization and then for implementation of the developed solution ICAR-ERP.

## 10. Status on Environmental and Social Safeguard Framework : NA

### 11. Constraints, if any and Remedial Measures Taken

- i) Constraint: Data digitization agency Karyy spent a lot of time on developing an application for entering HR module data which led to unexpected delay in initiating the data digitization activity.

Measure: Decision was taken to enter the data in the excel templates developed for each of the five functional area modules.

- ii) Constraint: While carrying out Data Digitization activity at ICAR institutes, a lot of difficulty and reluctance of the officials from the institutes was faced for the verification of data. This was the essential part of the activity and each institute was well appraised in advance regarding this and thus led to a lot of delay in completion of the activity and handling over of data to the lead centre, resulting in the delayed implementation.

Measure: To implement the system without the entire verified data from the institutes, it was decided to go ahead with the implementation using some of the mandatory and basic fields in the excel template for each functional area module.

- iii) Constraint: No consensus could be reached to in finalizing the contract agreement with Oracle India Pvt. for procurement of Oracle licenses even after a series of discussions and meetings. As a direct impact this had put the entire project at stake.

Measure: The contract was signed with an Oracle partner for procuring Oracle licenses.

- iv) Constraint: Non-availability of adequate ICT infrastructure at the end-users level in ICAR institutes led to the slow pace of ICAR-ERP implementation.

Measure: NAIP provided financial support to develop the ICT infrastructure for smooth implementation and operation of ICAR-ERP.

### 12. Publications (As per format of citation in Indian Journal of Agricultural Sciences)

#### A. Research papers in peer reviewed journals

S. No.	Authors, Title of the paper, Name of Journal, Year, Vol. & Page No.	NAAS Ratings	Responsible Partner

#### B. Books/ Book chapters/ Abstracts/ Popular articles, Brochures, etc.

Series of Technical Manuals were prepared in different functional areas.

- 12 Application System Requirement Specifications (SRS) (As-Is) and Application Customization Requirements Specifications (CRS) (To-Be) Documents were prepared
- 11 Operational Procedures (User) Manuals were prepared.
- 3 Brochures were prepared.

### Technical Manuals

- Technical Series IASRI/ NAIP/MIS-FMS/Tech. Arch./2012: Technical Architecture Document
- Technical Series IASRI/NAIP/MIS-FMS/AS-IS 1/2012 :Requirement Analysis : AS IS Document – Payroll
- Technical Series IASRI/NAIP/MIS-FMS/AS-IS 2/2012 :Requirement Analysis : AS IS Document - Human resources
- Technical Series IASRI/NAIP/MIS-FMS/AS-IS 3/2012 :Requirement Analysis : AS IS Document - Procurement and Stores(SCM)
- Technical Series IASRI/NAIP/MIS-FMS/AS-IS 4/2012 :Requirement Analysis : AS IS Document - Grants and Budgeting
- Technical Series IASRI/NAIP/MIS-FMS/AS-IS 5/2012 :Requirement Analysis : AS-IS Document - Core Financial
- Technical Series IASRI/NAIP/MIS-FMS/AS-IS 6/2012 :Requirement Analysis : AS IS Document – Project
- Technical Series IASRI/NAIP/MIS-FMS/TO-BE 1/2012 :Requirement Analysis : TO BE Document – Payroll
- Technical Series IASRI/NAIP/MIS-FMS/TO-BE 2/2012 :Requirement Analysis : TO BE Document - Human Resources
- Technical Series IASRI/NAIP/MIS-FMS/TO-BE 3/2012 :Requirement Analysis : TO BE Document - Procurement and Stores(SCM)
- Technical Series IASRI/NAIP/MIS-FMS/TO-BE 4/2012 :Requirement Analysis : TO BE Document - Grants and Budgeting
- Technical Series IASRI/NAIP/MIS-FMS/TO-BE 5/2012 :Requirement Analysis : TO BE Document - Core Financial
- Technical Series IASRI/NAIP/MIS-FMS/TO-BE 6/2012 :Requirement Analysis : TO BE Document – Project
- ICAR ERP Projects MIS – User Manual Document
- ICAR ERP Purchasing– User Manual Document
- ICAR ERP Stores – User Manual Document
- ICAR ERP Accounts Payables – User Manual Document
- ICAR ERP Accounts Receivable – User Manual Document
- ICAR ERP Fixed Assets – User Manual Document
- ICAR ERP General Ledger – User Manual Document
- CORE Human Resource Management System (HRMS)– User Manual Document
- SELF Service Human Resource Management System (SSHR)- User Manual Document
- ICAR ERP Payroll – User Manual Document
- ICAR Pension Solution – User Manual Document
- ICAR ERP Grants and Budgeting – User Manual Document
- MIS/FMS Brochures
- Uniform Mail Messaging Solution Brochure
- Operational Guidelines Brochure

### 13. Media Products Developed/Disseminated

A total of 102 Online Computer Based Training materials were prepared for different process.

#### Module Name: Finance

1. Account Payable	
1.	Advance to CPWD
2.	Approval by Audit and Accounts
3.	Bill creation by DDO Assistant
4.	Bill creation of asset based on PO
5.	Bill creation with TDS
6.	Employee advance bill creation
7.	File received date enter by dealing hand
8.	Main cash book
9.	Payment by cash section
10.	Process for DDO
11.	Process to run TDQ Quarterly returns
12.	Process to run TDS certificate
13.	Process to view the financial statements
14.	Reserve Pension Bank
15.	Subsidiary cash book

2. Accounts Receivable	
1.	Employee Penal
2.	Project Receipt
3.	Receipt
4.	TR 5

3. Fixed Assets	
1.	Asset Retirement
2.	Manual Asset Addition
3.	Mass Addition Create
4.	Mass Addition
5.	Run Depreciation
6.	Run Reports

4. General Ledger	
1.	Enter and Post a Journal
2.	Journal Inquiry

3.	Post a Journal
4.	Submit Request to Run Financial Statements

#### 5. Grants and Budgeting

1.	Budget Cut
2.	Budget Reapportion
3.	Budget Reports 1
4.	Budget Upload
5.	EFC Budget Upload
6.	EFC ITEM LISTING
7.	Fund Disbursement
8.	Non Plan Budget Upload Temp
9.	Non Plan Pre Budget
10.	Post Re Non Plan
11.	Receipt Of Fund by Institute

#### Module Name: Human Resource Management System & Self Service HR

1.	Employee Address
2.	Employee Creation
3.	Joining Report
4.	Leave
5.	Religion Passport Information

#### Module Name: Payroll & Pension

1.	ICAR Assignment Status
2.	ICAR NPS Process
3.	ICAR Salary Components
4.	Pension Process when Disbursement from Bank

#### Module Name: Project

1.	Pension process when disbursement from bank
2.	Pension Process when payment through Institute
3.	Document Approval
4.	How to find or open an existing document
5.	How to Obtain Concurrence
6.	How to Provide Concurrence
7.	How to Run and View a Report
8.	Project Abeyance

9.	RPPI Budget Creation
10.	RPPI Capture Item Details
11.	RPPI PME Cell Appraisal
12.	RPPI Amendment
13.	RPPI Budget Multiple Institute Project
14.	RPPI Checklist
15.	RPPI Creation
16.	RPPII HoD Approval and Project Rating
17.	RPPII PME Approval and IRC Comments
18.	RPPII Project and Team Rating
19.	RPPII and RPPIII Dir Approval and Rating
20.	RPPII Creation
21.	RPPIII Final Project Evaluation by PI
22.	RPPIII Team Rating by PI
23.	RPPIII Checklist
24.	RPPIII Creation
25.	RPPIII PME Approval and Final Project Evaluation by Evaluation Committee
26.	RPPIV PME Approval and Observations of PME Cell
27.	RPPIV Creation
28.	Status Report Creation
29.	Update Activity and Targets
30.	Work plan Creation 1
31.	Work plan Creation 2

### Module Name: Purchase & Stores

1.	Delivery Process
2.	Direct PO Creation from approved Indent
3.	EFC Item Form Entry
4.	Financial Quote Analysis
5.	How to run reports
6.	Indent Creation for Non Plan
7.	Indent Creation for Plan
8.	Indent Creation for Projects
9.	Inspection Process
10.	Log in into the system
11.	Material issue to Employee
12.	On Hand Quantity
13.	Purchase order creation against approved quotation



14.	Purchase order for buy back
15.	Quotation Creation from RFQ
16.	Receipt Creation Process
17.	RFQ Creation from an Approved Requisition
18.	Sub Inventory Transfer

#### 14. Meetings/Seminars/Trainings/Kisan Mela, etc. organized

Various meetings and workshops were organized at IASRI and partner organizations (CIFE Mumbai, NDRI Karnal, CRIJAF Kolkata and NAARM Hyderabad) for requirement study and validation of AS IS and TO BE processes in the solution. Number of sensitization workshops/meetings was organized for ICAR institute personnel for imparting knowledge related to data digitization and system overview. Review meetings were organized to review the project progress on regular basis. Meeting details are given below:

##### i) Meetings

Title of the Activity	Type of Activity	Place	Duration		No. of People Attended
			From	To	
Validation of As Is Process in different functional areas of Finance, SCM and HR in Requirement Analysis Workshop.	Requirement analysis workshop	IASRI	30-Apr-2012	5- May- 2012	42
Payroll TO BE document discussion with core team.	Requirement Meeting	ICAR	19-June-2012	19-June-2012	7
SCM TO BE document discussion with core team.	Requirement Meeting	IARI	22-June-2012	22-June-2012	5
HR TO BE document discussion with core team.	Requirement Meeting	ICAR	2-July-2012	2-July-2012	6
Sensitization Workshop on data digitization requirements of the project.	Sensitization Workshop	IASRI, New Delhi	12-Sept- 2012	12-Sept- 2012	50
Technical Committee Meeting to evaluate system architecture	Technical Meeting	IASRI, New Delhi	22-Oct -2012.	22-Oct-2012	12
Technical Committee Meeting on Oracle Licenses	Technical Meeting	IASRI, New Delhi	08-Nov -2012	08-Nov-2012	10
System Demonstration To Core Group Members	Sensitization Meetings	IASRI, New Delhi	02-Jan-2012	18-Jan-2013	50
Review Meeting of User Acceptance Testing	Meeting	IASRI, New Delhi	22-Jan-2013	22-Jan-2013	15
Meeting with IBM for Technical Architecture	Meeting		25-Feb-2012	25-Feb-2012	32
Technical Committee for Bid Evaluation	Technical Committee Meeting	IASRI, New Delhi	18-April-2013	18-April-2013	8
Requirement Analysis	Workshop	IASRI, New Delhi	30-Apr-2012	30-Apr-2012	41

Pre Bid Meeting for Data Digitization work	Meeting	IASRI, New Delhi	03-May-2013	03-May-2013	18
Review Meeting on Project Progress	Review Committee meeting	IASRI, New Delhi	06-May-2013	06-May-2013	17
User Acceptance Testing of Project Module	Workshop	IASRI, New Delhi	08-May-2013	10-May-2013	37
User Acceptance Testing of Purchase & Store Module	Workshop	IASRI, New Delhi	13-May-2013	15-May-2013	26
User Acceptance Testing of Finance Module	Workshop	IASRI, New Delhi	15-May-2013	18-May-2013	57
User Acceptance Testing of HRMS Module	Workshop	IASRI, New Delhi	20-May-2013	22-May-2013	43
User Acceptance Testing of Payroll and Pension Module	Workshop	IASRI, New Delhi	23-May-2013	25-May-2013	31
User Acceptance Testing of Grants and Budgeting Module	Workshop	IASRI, New Delhi	23-May-2013	25-May-2013	25
Bid opening for Data Digitization	Meeting	IASRI, New Delhi	28-May-2013	28-May-2013	15
Meeting with M/s Karvy	Meeting	IASRI, New Delhi	26-June-2013	26-June-2013	8
Evaluation Committee Meeting for Data Digitization Bid	Meeting	IASRI, New Delhi	03-July-2013	03-July-2013	8
Review Meeting on Project Progress	Review Committee meeting	IASRI, New Delhi	18-July-2013	18-July-2013	23
Sensitization about MIS/FMS solution and Data Templates	Sensitization Meeting	NBPGR, New Delhi	03-Aug-2013	03-Aug-2013	31
Sensitization Meeting about Project	Sensitization Meeting	IARI, New Delhi	03-Aug-2013	03-Aug-2013	7
Sensitization about MIS/FMS solution and Data Templates	Sensitization Workshop	NDRI, Karnal	07-Aug-2013	07-Aug-2013	99
Sensitization about MIS/FMS solution and Data Templates	Sensitization Workshop	IVRI, Bareilly	19-Aug-2013	19-Aug-2013	83
Review Meeting on Project Progress	Review Committee meeting	IASRI, New Delhi	16-Sept-2013	16-Sept-2013	15
Pre Bid Meeting for Data Center	Meeting	IASRI, New Delhi	16-Sept-2013	16-Sept-2013	90
Review Committee Meeting for Project Progress	Meeting	IASRI, New Delhi	16-Sep-2013	16-Sep-2013	15
Sensitization about MIS/FMS solution and Data Templates	Sensitization Workshop	IASRI, New Delhi	25-Sept-2013	25-Sept-2013	51
Revised Implementation plan and contract amendment with IBM	Meeting	KAB-II	21-Oct-2013	21-Oct-2013	17
Data Sensitization workshop	Workshop	IINR, Ranchi	30-Oct-2013	30-Oct-2013	47
Review Committee Meeting	Meeting	IASRI, New Delhi	13-Dec-2013	13-Dec-2013	25

### 15. Participation in Conference/ Meetings/Trainings/ Radio talks, etc.

1. CPI Dr. A.K. Choubey and CCPI Dr. Alka Arora attended the Annual Progress Review of ICT Projects under NAIP Component-I held during March 2013 at NAARM, Hyderabad.
2. CPI Dr. A.K. Choubey and CCPI Dr. Alka Arora attended the Cross -Cutting Workshop of ICT Sub-projects of NAIP 6-7 December 2013.
3. CPI Dr. A.K. Choubey attended the Director's Conference held during 19-20 January 2014 at Pune and presented the progress of the project and discussed the issues being faced for ICAR-ERP implementation in ICAR institutes.
4. CCPI Dr. Alka Arora attended the 16th Annual Conference of Society of Statistics, Computer and Applications at Bhagat Phool Singh Mahila Vishwavidyala, Sonapat, during 24 - 26 February 2014 and presented a paper entitled "ICAR-ERP: a Solution for Planning & Management of Resources in ICAR; Alka Arora, A K Choubey, Sudeep Marwaha, Shashi Dahiya, Anshu Bhardwaj, S N Islam, Mukesh Kumar, S N Rao, Pal Singh, Sangeeta Ahuja".

### 16. Foreign Trainings/Visits: NA

S. No.	Name, Designation, Address of the Person	Visit/Training/Seminar its Place, Organization and Duration (From-To)	Dates of Seminar Delivered and Report Submitted on Return	Follow up Action	Total Cost ( )

### 17. Performance Indicators : Attached Annexure-1

(As per the enclosed format in Appendix-1: Component-wise; and Sub-component-wise)

S. No.	Indicator	Total Numbers

### 18. Employment Generation (man-days/year)

S. No.	Type of Employment Generation	Employment Generation up to End of Sub-project	Responsible Partner
1.	Senior Research Fellow (3)	May, 12 to Aug, 13	IASRI, New Delhi
2.	Research Analyst(4)	Aug, 13	IASRI, New Delhi
3.	System Analyst(1)	Aug, 12	IASRI, New Delhi
4.	Office Assistant(1)	Sep, 12	IASRI, New Delhi
5.	Data Entry Operator(4)	Mar, 13 to Oct, 13	IASRI, New Delhi
6.	Senior Research Fellow (4)	Aug, 13	IASRI, New Delhi
7.	Research Analyst(1)	Mar, 12	NDRI, Karnal
8.	Research Analyst(1)	Mar, 12	CIFE, Mumbai
9.	Research Analyst(1)	Mar, 12	NAARM, Hyderabad

## 19. Assets Generated

(Details to be given on equipments and works undertaken in the sub-project, costing more than ` 10,000/- in each case)

### (i) Equipment

S. No.	Name of the Equipment with Manufacturers Name, Model and Sr. No.	Year of Purchase	Quantity (Nos.)	Total cost ( ` )	Responsible Partner
1.	Desktop Dell E1912H 18.5" Monitor with Back Light OptiPlex™ 9010 DT base w/ up to 90 percent efficient PSU	2012	5	238550	IASRI
2.	Toshiba Photo Copier E-Studio-225 S/n: C34260629	2012	1	90756	IASRI
3.	Dell Laptop	2012	5	250215	IASRI
4.	Lexmark E 260D printer S/n: 72B51VX,72B4L6N	2013	2	15225	IASRI
5.	MFP Printer Lexmark MX 310 dn	2013	1	22260	IASRI
6.	Basic Digital Copier	2013	1	129755	IASRI
7.	Data Projector EW330U	2013	2	102352	IASRI
8.	HP Laser jet MFD S/n: CNF8F897NX, NF8F89DJ4, CNF8F897YG, CNF8F794JR, CNF8F794YH, CNF8F64MQ, CNF8F8BCYD, CNF8F798ZG, CNF8F798ZW, CNF8F89DJB, CNF8F8R23X, CNF8F8F879, CNF8F6SD9G, CNF8F897W2, CNF8F79940, CNF8F794JC, CNF87798BX, CNF8F7993D,	2013	18	422100	IASRI
9.	Kyocera Photo-Copier FS6530 MFP	2013	1	169995	IASRI
10.	VSDU(Storage), Furniture	2013	7	61031	IASRI
11.	Chairs, Furniture	2013	56	227250	IASRI
12.	Oracle License & Support	2013	1 set	78714404	IASRI
13.	Networking, Network Management Cabling etc.	2013	214 nodes	2500135	IASRI
14.	Video Conferencing Facility ROOM220	2013	1	765450	IASRI
15.	Hitachi Projector CP-A222WNM Digital Board FX-79E1 Samsung LCD MD46B AHA Interactive Lecterns Elf	2013	1	913950	IASRI
16.	Database Server	2013	2	6815160	IASRI
17.	Application Server	2013	2	3224108	IASRI
18.	10 G Switches	2013	2	988164	IASRI
19.	1 G Switches	2013	2	430050	IASRI

20.	Development Server	2013	1	3281691	IASRI
21.	Testing Server	2013	1	1162054	IASRI
22.	Training Server	2013	1	1162054	IASRI
23.	Storage (SAN Switch, Tape library, Backup Software, Backup Server	2013	1	7259475	IASRI
24.	UPS, Racks, Cabling & Cooling	2013	1	4983240	IASRI
25.	Furniture(Chair)	2013	50	199950	IASRI
26.	Split Air-Conditioner with Compressor	2013	6	225977	IASRI
27.	Computers G1PWFY1, C0P WFY1, 82PWFY1, 4ZNWFY1, 20PWFY1, GXNWFY1, C1PWFY1, 8XNWFY1, 60PWFY1, 22PWFY1, GYNWFY1,D1PWFY1, 92PWFY1, 6YNWFY1, 31PWFY1, H2PWFY1, F0PWFY1, 93PWFY1, 70PWFY1, 41PWFY1, HWNWFY1, F2PWFY1, 9ZNWFY1, 81PWFY1, 42PWFY1, SDMPJTC5HF192 , SDMPJTB19F192, SDMPJTKBQF192, SDMPJTH2XF192, SDMPJTBAWF192,	2013	30	1379610	IASRI
28.	Laptop (HP- Envyspectnext 13-2001)	2013	1	69563	CIFE
29.	UPS System (Line interactive UPS-600 AV Cap [1-1]APC BR 600 [IB]	2013	8	21000	CIFE
30.	Desktop Dell-9010 DT-26465036	2013	8	378022	CIFE
31.	Furniture	2013	9	63056	CIFE
32.	Printer(Black And White) Model= HP LJP 1108# CE 655A	2013	5	29027	CIFE
33.	Printer(Color), Model No=HP LJ PRO 300 M 351 printer	2013	3	64500	CIFE
34.	Desktop Computers HP ELITE 8000 SSF(AU247AV) SI No. (INA101RV6Q, INA103SHS4,INA103SHS 0,INA103SHS7) Tft 18.5" HP Nj 712AA(Hewlett Packard(HP)) SI No.(CNC046RZRM, CNC101VR75, CNC101VR98,CNC104S7NW)	2010-11	4 Nos.	650000	NDRI, Karnal
35.	Printer(Hewlett Packard HP) Laserjet 1606 Dn (VNC 3Z03110,VNC3Z03138,VNC3Z03144,VNC3Z03117)	2010-11	4 Nos.		NDRI, Karnal
36.	UPS 1 KVA Online Luminious, SI No.(Y017051210-2, Y017071210-2,Y017061210-2,Y017081210-2)	2010-11 2010-11	4 Nos. 1 Nos.		NDRI, Karnal
37.	Laptop HP Probook 5000 Series(Computer Notebook with INTEL Core i-7 620M With Window 7 Professional)				NDRI, Karnal
38.	4 Nos HP Commercial Desktop 8000 Series SEF(S. NO INA148XPP5, PM9,PP2,PQ3) Tft 18.5" HP(CNT 139B3FT,3H8,3H7,3G5)	2011-12	4 Nos		NDRI, Karnal

39.	4 Nos HP Laserjet 2055 Dn(SI No.VNC3T22409,VNC3T21770,VNC3T20066,VNC3T22169)	2011-12	4 Nos		NDRI, Karnal
40.	4 Nos UPS 1 KVA Luminious B03L36002316 5A6,B03L360023164A6,B03L360023306A6, B03L360023185A6	2011-12	4 Nos	650000	NDRI, Karnal
41.	1 Executive Chair (Make:Godrej Model:7001D) 1 revolving chair(Make: Godrej Model : 9P01A) (Kareena Model)	2011-12	1 Nos 1 Nos.	24,788	NDRI, Karnal
42.	Desktop Computers (HP/HP8200) (AU247AV) SI No. (INA303VK37,INA303VK35,INA247RTW8,INA303VCB6) Tft 18.5" HP Nj 712AA(Hewlett Packard(HP)) SI No .(3CQ23602V5,3CQ23602T2,3CQ2430CRW,3CQ23602SH)	2012-13	4 Nos.	300000	NDRI, Karnal
43.	Printer(Aficio SP3410 DN/SP3300DN) Laserjet, SI No. (S5828500233,S5828500217,S5828500179 ,S5828500158 )	2012-13	4 Nos.		NDRI, Karnal
44.	UPS 1 KVA Online Luminious, SI No.(SerIG1204,IG1206, IG1212,IG1202)	2012-13	4 Nos.		NDRI, Karnal
45.	4DVR Vertical filing cabinet Book case(VSDU-10)	2012-13 2012-13	2 Nos. 1 Nos	44895	NDRI, Karnal
46.	HP make Laptop (model no. 4431S) (Product. No.A9D47PA#ACJ) (Sl. No. CNU2151980)	2013	01	60216	CRIJAF, Barrackpore, Kolkata
47.	HP make Laser Printer (model no. LJP 3015dn) (Sl. No. VNC3Y04815) (Sl. No. VNC3504000)	2013	02	74556	CRIJAF, Barrackpore, Kolkata
48.	HP make colour Laser Printer (model no. dn251) (Sl. No. CNCFV01866)	2013	01	16500	CRIJAF, Barrackpore, Kolkata
49.	HP made Desktop Computer (model no. 8300E8S) (Sl. No. INA302V95J) (Sl. No. INA302V926) (Sl. No. INA304VVHW) (Sl. No. INA304VVMJ) (Sl. No. INA304VVQ0) (Sl. No. INA304VVJL) (Sl. No. INA302V8WC) (Sl. No. INA304VVBX)	2013	08	334304	CRIJAF, Barrackpore, Kolkata
50.	Laptop Model HP6470	2013	01	69500	NAARM
51.	Desktop Model: Dell Optiplex 7010	2013	08	349440	NAARM
52.	UPS-Model APC 1100-SL	2013	08	43480	NAARM
53.	Printer-Model Sansung SCX472x	2013	03	53393	NAARM
54.	Printers –Model: Cannon Laser Multifunction Printer(MF3010B)	2013	05	48594	NAARM
55.	Unified Mail Messaging Solution	2014	Solution	19000000	IASRI

**(ii) Works**

S. No.	Particulars of the Work, Name and Address of Agency Awarded the Work	Year of Work Done	Quantity (Nos.)	Total Cost ( ` )	Responsible Partner
1.	Lab for the FMS/MIS customization & supports M/s P.D.Singh Bros.	2013		446794	IASRI
2	Creation of network operation center & video conferencing & training lab	2014		2600000	IASRI

**(iii) Revenue Generated : NA**

(Details may be given on revenue generated in the sub-project viz., sale of seeds, farm produce, products, patents, commercialization, training, etc.)

S. No.	Source of Revenue	Year	Total amount ( ` )	Responsible Partner

**(iv) Livestock: NA**

(Details of livestock procured/produced in the sub-project)

S. No.	Details of Livestock (Breed, etc.)	Year of Procurement/Production	Nos.	Total Cost ( ` )	Responsible Partner

**20. Awards and Recognitions : NIL**

S. No.	Name, Designation, Address of the Person	Award/ Recognition (with Date)	Institution/ Society Facilitating (Name & Address)	Responsible Partner

**21. Steps Undertaken for Post NAIP Sustainability**

For sustaining the project Post NAIP, a proposal was presented for including the provisions of grant of finance in the EFC documents of IASRI in 12<sup>th</sup> Plan. The proposal has been approved.

**22. Possible Future Line of Work**

- i) Implementation of ICAR-ERP in Phase-II institutes.
- ii) To provide the e-mail services for ICAR personnel and hosting the websites/ web applications developed at different institutes of ICAR.



## 23. Personnel

(Staff of Lead Centre & Partner-wise, their Name, Designation, Discipline and Duration)

	From – To (DD/MM/YYYY)
<b>Research Management (CL)</b>	
1. DDG (Engg.)	February, 2012
<b>Core Business Group</b>	
2. Mr. Devendra Kumar, Dir (F)	February, 2012
3. Mrs. Sunita Arya, SF&AO	February, 2012
4. Mrs. Namrata Sharma, DS(P)	February, 2012
5. Mrs. Rajshree Sunil, US	February, 2012
6. Mr. K. N. Choudhary, DS	February, 2012
7. Mr. Dilip Roy, DDO	February, 2012
8. Mr. J. Ravi, Director(P),	February, 2012
9. Mr. Radhey Sham, Comptroller	February, 2012
10. Mr. G. P. Sharma, DDF (F)	February, 2012
11. Mrs. Rashmi Rao, DDF (F)	February, 2012
12. Mr. S. K. Pathak, DDF (F)	February, 2012
13. Dr. Rajender Parsad	February, 2012
14. Dr. Seema Jaggi	February, 2012
15. Dr. P. K. Malhotra	February, 2012
16. Dr. R. C. Goyal	February, 2012
<b>Indian Agricultural Statistics Research Institute, New Delhi</b>	
<b>Scientific (CPI, CCPI, others)</b>	
17. Dr. A. K. Choubey, Head(CA), CPI	February, 2013
18. Dr. Alka Arora, Sr. Scientist, CCPI	February, 2012
19. Dr. Sudeep, Sr. Scientist, Co-PI	February, 2012
20. Mrs. Shashi Dahiya, Scientist, Co-PI	February, 2012
21. Dr. Anshu Bharadwaj, Scientist, Co-PI	February, 2013
22. Mr. S. N. Islam, Scientist, Co-PI	February, 2012
23. Dr. Mukesh, Sr. Scientist, Co-PI	September, 2013
24. Dr. S. N. Rao, Sr. Scientist, Co-PI	September, 2013
25. Mr. Pal Singh, Scientist, Co-PI	September, 2013
26. Mrs. Sangeeta Ahuja, Scientist, Co-PI	September, 2013

<b>National Dairy Research Institute, Karnal</b>	
<b>Scientific (CPI, CCPI, others)</b>	
27. Mr. J.K. Kewalramani, JD (Admn) & Registrar, CCPI	February, 2012
28. Mr. Vishal Acharya, AF&AO, Co-PI	February, 2012
29. Mr. Brahm Parkash, DDO, Co-PI	February, 2012
30. Mr. S George, CF&AO, Co-PI	February, 2012
31. Vandana, RA	March, 2012
<b>Central Institute of Fisheries Research, Mumbai</b>	
32. Sh. Suresh Chandra, CF&AO, CCPI	February, 2012
33. Mr. Suresh Kumar, CAO, Co-PI	February, 2012
34. Dr. S. Jahageerdar, Principal Scientist, Co-PI	February, 2012
35. Santosh Hodge, RA	September, 2012
<b>National Academy of Research Management, Hyderabad</b>	
36. Sh. Sanjay Kant, JD (Admin) & Registrar, CCPI	February, 2012
37. Sh. Jakir Hussain Khilji, F &AO, Co-PI	February, 2012
38. Dr. M. Balakrishnan, Senior Scientist, Co-PI	February, 2012
39. Bhasker Rao, RA	March, 2012
<b>Contractual Staff – IASRI, New Delhi</b>	
40. Nidhi Jain	July, 2012
41. Tarun Dutta	May, 2012
42. A. K. M. Samimul Alam	June, 2012
43. Sakshi Baweja	September, 2012
44. Pawan	August, 2012
45. Pushpanjali Rawat	August, 2013
46. Vikas Bhardwaj	August, 2013
47. Sunil Kumar jha	September, 2013
48. Pramod Kumar	September, 2013
49. Hunny Gupta	October, 2013
50. Tanuj Misra	December, 2013
51. Kamalika Nath	January, 2014
52. Narender Kumar Sharma	August, 2012
53. Naveen Bashisht	November, 2013
54. Rahul Sharma	November, 2013

## 24. Governance, Management, Implementation and Coordination

### A. Composition of the various committees (CIC, CAC, CMU, etc.)

Various committees and core teams were constituted for management and coordination of the project. Details are given below:

- i) Review Committee under the chairmanship of DDG (Engg.), ICAR, New Delhi.
- ii) Technical Committee for procurement Oracle license under the chairmanship of Dr. R.C. Agrawal, Registrar General, PPVFRA, New Delhi.
- iii) Four Business Core Groups were constituted for Finance, Personnel, Project, Administration processes under the chairmanship of Director (Finance), ICAR; Director (Personnel), ICAR; Director (Administration), ICAR and Director (IASRI), ICAR respectively for providing inputs in designing, developing and testing of ICAR-ERP modules.
- iv) Data digitization committee was constituted at IASRI level for monitoring and coordinating the data digitization activity at various institutes.

### A. List of Meetings organized (CIC, CAC, CMU, etc.)

Title of the Activity	Type of Activity	Place	Duration		No. of People Attended
			From	To	
Review Committee Meeting	Meeting	IASRI, New Delhi	25-Jan-12		6
Meeting with IBM for Technical Architecture	Meeting		25-Feb-12	25-Feb-12	32
Review Committee Meeting	Meeting	IASRI, New Delhi	29-Jun-12		8
Review Committee Meeting	Meeting	IASRI, New Delhi	16-Aug-12		16
Review Committee Meeting	Meeting	IASRI, New Delhi	12-Sep-12		
Technical Committee Meeting to evaluate system architecture	Technical Meeting	IASRI, New Delhi	22-Oct -2012.	22-Oct-12	12
Review Committee Meeting on Oracle Licenses	Technical Meeting	IASRI, New Delhi	8-Nov-12	8-Nov-12	10
Technical Committee	Meeting	IASRI, New Delhi	17-Dec-12	17-Dec-12	12
Technical Committee Meeting	Technical Meeting	IASRI, New Delhi	21-Dec-12	21-Dec-12	10
Review Committee Meeting	Meeting	IASRI, New Delhi	22-Feb-13	22-Feb-13	20

Technical Committee for Bid Evaluation	Technical Committee Meeting	IASRI, New Delhi	18-Apr-13	18-Apr-13	8
Review Meeting on Project Progress	Review Committee meeting	IASRI, New Delhi	6-May-13	6-May-13	17
Review Meeting on Project Progress	Review Committee meeting	IASRI, New Delhi	18-Jul-13	18-Jul-13	23
Review Meeting on Project Progress	Review Committee meeting	IASRI, New Delhi	16-Sep-13	16-Sep-13	15
Review Committee Meeting for Project Progress	Meeting	IASRI, New Delhi	16-Sep-13	16-Sep-13	15
Revised Implementation plan and contract amendment with IBM	Meeting	KAB-II	21-Oct-13	21-Oct-13	17
Review Committee Meeting	Meeting	IASRI, New Delhi	13-Dec-13	13-Dec-13	25
Review Committee Meeting	Meeting	IASRI, New Delhi	5-Jun-14	5-Jun-14	27

## Part-III: Budget and its Utilization

### STATEMENT OF EXPENDITURE (Final)

(Period from 1.04.2010 to 31.03.2014)

(Date of start)

(Date of completion)

**Sanction Letter No.:** 30(9)/2006/RFPS/NAIP/O&M

**Total Sub-project Cost:** 7212.56000

**Sanctioned/Revised Sub-project cost (if applicable)** \_\_\_\_\_

**Date of Commencement of Sub-project:** 1.04.2010 (transferred to IASRI 19 JAN 2012)

**Duration:** From 1.04.2010 to 30.6.2014 (DD/MM/YYYY)

#### Funds Received in each year

**I Year:** 8.45000

**II Year:** 117.79996

**III Year:** 1527.88220

**IV Year:** 1597.10462

**Total amount received:** 3251.23678

**Total expenditure:** 1575.78962 (Till March 2014)

**Total expenditure (approx.):** 4565.79596

## Expenditure Head-wise

Sanctioned Heads	Funds Allocated (*)	Funds Released				Expenditure Incurred				Total Expenditure	Balance as on date 31 March, 2014
		2010-11	2011-12	2012-13	2013-14	2010-11	2011-12	2012-13	2013-14		
(1) TA	20.78856	1.00000	0.00000	6.45526	4.50000	0.00000	0.00000	1.01961	4.92149	1.01961	10.93565
(2) Workshops	33.64996	1.00000	0.00000	9.50000	4.55080	0.00000	0.00000	0.88996	2.60660	0.88996	14.16084
(3) Contractual Services/RA/SRF	73.59271	1.50000	2.99519	22.25605	18.05100	1.74570	2.99519	16.98471	45.31736	21.72560	23.07664
(4) Operational Cost	257.46714	0.50000	1.05052	31.39682	111.90726	0.05158	1.05023	9.66383	129.75628		
<b>Sub-Total of A (1-4)</b>	<b>385.49837</b>	<b>4.00000</b>	<b>4.04571</b>	<b>69.60813</b>	<b>139.00906</b>	<b>1.79728</b>	<b>4.04542</b>	<b>28.55811</b>	<b>182.50173</b>	<b>34.40081</b>	<b>182.26209</b>
<b>B. HRD Component</b>											
(5) Training	64.00000	0.00000	0.00000	26.00000	26.00000	0.00000	0.00000	0.00000	0.00000	0.00000	52.00000
(6) Consultancy	1151.42285	0.00000	110.43000	570.00000	113.00000	0.00000	110.42314	0.00000	0.00000	110.42314	683.00686
<b>Sub-Total of B (5-6)</b>	<b>1215.42285</b>	<b>0.00000</b>	<b>110.43000</b>	<b>596.00000</b>	<b>139.00000</b>	<b>0.00000</b>	<b>110.42314</b>	<b>0.00000</b>	<b>0.00000</b>	<b>110.42314</b>	<b>735.00686</b>
<b>C. Non-Recurring</b>											
(7) Equipment	5251.48323	3.75000	2.97387	832.64407	1200.00000	3.53120	2.97387	26.94291	1102.00313	6.50507	2032.86287
(8) Furniture	7.50000	0.00000	0.24788	12.25000	5.00000	0.00000	0.24788	0.44895	5.51287	0.69683	16.80105
(9) Works (new renovation)	304.46794	0.00000	0.00000	15.00000	100.00000	0.00000	0.00000	4.46794	95.47751	4.46794	110.53206
(10) Others (Animals, Books, etc.)	1.28261	0.50000	0.00000	1.50000	0.00000	0.00000	0.00000	1.00000	0.00000	1.00000	1.00000
<b>Sub-Total of C (7-10)</b>	<b>5564.73378</b>	<b>4.25000</b>	<b>3.22175</b>	<b>861.39407</b>	<b>1305.00000</b>	<b>3.53120</b>	<b>3.22175</b>	<b>32.85980</b>	<b>1202.99351</b>	<b>39.61275</b>	<b>2134.25307</b>
<b>D. Institutional Charges*</b>	34.20500	0.20000	0.10250	0.88000	14.09556	0.00000	0.12250	0.59500	5.14018	0.71750	14.56056
<b>Grand Total (A+B+C+D)</b>	<b>7212.56000</b>	<b>8.45000</b>	<b>117.79996</b>	<b>1527.88220</b>	<b>1597.10462</b>	<b>5.32848</b>	<b>117.81281</b>	<b>62.01291</b>	<b>1390.63542</b>	<b>1575.78962</b>	<b>3066.08258</b>



**IASRI Expenditure Head-wise:**

Sanctioned Heads	Funds Allocated (*)			Funds Released			Expenditure Incurred			Total Expenditure	Balance as on date
	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14	2011-12	2012-13	2013-14		
<b>A. Recurring Contingencies</b>											
(1) TA		9.36690	4.00000	4.00000	4.00000			0.36690	3.05729	3.42419	4.57581
(2) Workshops		7.88996	3.50000	7.50000	3.50000			0.88996	0.32831	1.21827	9.78173
(3) Contractual Services/ RA/SRF		38.60094	13.56000	10.50000	13.56000			11.48094	35.54936	47.03030	-22.97030
(4)Operational Cost		247.21703	1.00000	30.00000	111.24356		0.99971	8.72203	129.33858	-	-
<b>Sub-Total of A (1-4)</b>		<b>303.07483</b>	<b>1.00000</b>	<b>52.00000</b>	<b>132.30356</b>		<b>0.99971</b>	<b>21.45983</b>	<b>168.27354</b>	<b>190.73308</b>	<b>-5.42952</b>
<b>B. HRD Component</b>											
(5) Training		52.00000	26.00000	26.00000	26.00000			-	-	-	52.00000
(6) Consultancy		1,151.42285	110.43000	570.00000	113.00000		110.42314	-	-	110.42314	683.00686
<b>Sub-Total of B (5-6)</b>		<b>1,203.42285</b>	<b>110.43000</b>	<b>596.00000</b>	<b>139.00000</b>		<b>110.42314</b>	<b>-</b>	<b>-</b>	<b>110.42314</b>	<b>735.00686</b>
<b>C. Non-Recurring</b>											
(7) Equipment		5,211.56564	-	803.75000	1,200.00000		-	8.56864	1,097.28764	1,105.85628	897.89372
(8) Furniture		5.00000	-	10.00000	5.00000		-	-	4.88231	4.88231	10.11769
(9) Works (new renovation)		304.46794	-	15.00000	100.00000		-	4.46794	95.47751	99.94545	15.05455
(10) Others (Animals, Books, etc.)		1.28261	-	1.00000	-		-	1.00000	-	1.00000	-
<b>Sub-Total of C (7-10)</b>		<b>5,522.31619</b>	<b>-</b>	<b>829.75000</b>	<b>1,305.00000</b>		<b>-</b>	<b>14.03658</b>	<b>1,197.64746</b>	<b>1,211.68404</b>	<b>923.06596</b>
<b>D. Institutional Charges*</b>		29.47500	-	0.50000	13.85500		-	0.49500	4.88962	5.38462	8.97038
<b>Grand Total (A+B+C+D)</b>		<b>7,058.28887</b>	<b>1,11.43000</b>	<b>1,478.25000</b>	<b>1,590.15856</b>		<b>111.42285</b>	<b>35.99141</b>	<b>1,370.81062</b>	<b>1,518.22488</b>	<b>1,661.61368</b>

\* An Amount of Rs 14,36,00,715 /=( Fourteen Crores and Thirty Six Lakhs and Seven Hundred Fifteen only) has been returned to NAIP in Financial year 2012-2013.

\* An Amount of Rs 2,33,11,769 /=( Two Crores and Thirty Three Lakhs and Eleven Thousand and Seven Hundred Sixty Nine only) has been returned to NAIP in Financial year 2013-14.

### CRIJAF Expenditure Head-wise

Sanctioned Heads	Funds Allocated (*)	Funds Released			Expenditure Incurred		Total Expenditure	Balance as on date	Requirement of additional funds	Remarks
		2012-13	2012-13	2013-14	2012-13	2013-14				
<b>A. Recurring Contingencies</b>										
(1) TA	2.00000	0.50000	-	1.00000	-	1.00000	1.00	-0.50000	-	-
(2) Workshops	6.00000	-	-	0.39000	-	0.39000	0.39000	-	-	-
(3) Contractual Services/RA/SRF	7.06000	3.49000	0.46000	1.35000	0.46000	1.35000	0.46000	3.49000	-	-
(4)Operational Cost	2.00000	-	-	0.10000	-	0.10000	-	-	-	-
<b>Sub-Total of A (1-4)</b>	<b>17.06000</b>	<b>3.99000</b>	<b>0.46000</b>	<b>2.74000</b>	<b>0.46000</b>	<b>2.74000</b>	<b>0.46000</b>	<b>3.53000</b>	-	-
<b>B. HRD Component</b>										
(5) Training	3.00000	-	-	-	-	-	-	-	-	-
(6) Consultancy	-	-	-	-	-	-	-	-	-	-
<b>Sub-Total of B (5-6)</b>	<b>3.00000</b>	-	-	-	-	-	-	-	-	-
<b>C. Non-Recurring</b>										
(7) Equipment	8.05000	6.75000	5.05000	-	-	-	5.05000	1.70000	-	-
(8) Furniture	0.25000	0.75000	-	-	-	-	-	0.75000	-	-
(9) Works (new renovation)	-	-	-	-	-	-	-	-	-	-
(10) Others (Animals, Books, etc.)	-	-	-	-	-	-	-	-	-	-
<b>Sub-Total of C (7-10)</b>	<b>8.30000</b>	<b>7.50000</b>	<b>5.05000</b>	-	-	-	<b>5.05000</b>	<b>2.45000</b>	-	-
<b>D. Institutional Charges*</b>	0.83000	-	-	-	-	-	-	-	-	-
<b>Grand Total (A+B+C+D)</b>	<b>29.19000</b>	<b>11.49000</b>	<b>5.51000</b>	<b>2.74000</b>	<b>5.51000</b>	<b>2.74000</b>	<b>8.25000</b>	<b>3.24000</b>	-	-

## NDRI Expenditure Head-wise

Sanctioned Heads	Funds Allocated (*)	Funds Released				Expenditure Incurred				Total Expenditure	Balance as on date 31 March, 2014	
		2010-11	2011-12	2012-13	2013-14	2010-11	2011-12	2012-13	2013-14			
<b>A. Recurring Contingencies</b>												
(1) TA	3.02314	1.00000	-	0.50000	0.50000	-	-	0.02419	0.8642	0.02419	1.97581	
(2) Workshops	6.72000	1.00000	-	1.00000	1.00000	-	-	-	0.33609	0.00000	3.00000	
(3) Contractual Services/ RA/SRF	10.16481	1.50000	2.99519	1.80000	1.80000	1.7457	2.99519	3.07681	3.03600	7.81770	0.27749	
(4) Operational Cost	2.59220	0.50000	0.05052	0.50000	0.50000	0.05158	0.05052	0.28389	0.154			
<b>Sub-Total of A (1-4)</b>	<b>22.50015</b>	<b>4.00000</b>	<b>3.04571</b>	<b>3.80000</b>	<b>3.80000</b>	<b>1.79728</b>	<b>3.04571</b>	<b>3.38489</b>	<b>4.39029</b>	<b>8.22788</b>	<b>6.41783</b>	
<b>B. HRD Component</b>												
(5) Training	-	-	-	-	-	-	-	-	-	-	-	
(6) Consultancy	-	-	-	-	-	-	-	-	-	-	-	
<b>Sub-Total of B (5-6)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
<b>C. Non-Recurring</b>												
(7) Equipment	6.75000	3.75000	2.97387	3.00000	-	3.5312	2.97387	3.05105	-	6.50507	3.21880	
(8) Furniture	0.75000	-	0.24788	-	-	-	0.24788	0.44895	-	0.69683	-0.44895	
(9) Works (new renovation)	0.00000	-	-	-	-	-	-	-	-	-	-	
(10) Others (Animals, Books, etc.)	0.00000	0.50000	-	0.50000	-	-	-	-	-	-	1.00000	
<b>Sub-Total of C (7-10)</b>	<b>7.50000</b>	<b>4.25000</b>	<b>-</b>	<b>3.50000</b>	<b>0.00000</b>	<b>3.53120</b>	<b>3.22175</b>	<b>3.50000</b>	<b>0.00000</b>	<b>10.25295</b>	<b>0.71880</b>	
<b>D. Institutional Charges*</b>	<b>1.41000</b>	<b>0.20000</b>	<b>0.10250</b>	<b>0.19000</b>	<b>0.19000</b>	<b>-</b>	<b>0.12250</b>	<b>0.10000</b>	<b>0.20000</b>	<b>0.22250</b>	<b>0.46000</b>	
<b>Grand Total (A+B+C+D)</b>	<b>31.41015</b>	<b>8.45000</b>	<b>6.36996</b>	<b>7.49000</b>	<b>3.99000</b>	<b>5.32848</b>	<b>6.38996</b>	<b>6.98489</b>	<b>4.59029</b>	<b>23.29362</b>	<b>7.59663</b>	

## CIFE Expenditure Head-wise

Sanctioned Heads	Funds Allocated (*)	Funds Released			Expenditure Incurred			Total Expenditure	Balance as on date 31 March, 2014	Requirement of additional funds
		2012-13	2013-14	2012-13	2013-14	2012-13	2013-14			
<b>A. Recurring Contingencies</b>										
(1) TA	2.17326	0.50000	-	0.17326	-	-	0.17326	0.32674	-	
(2) Workshops	5.77000	1.00000	-	-	1.50140	-	1.50140	-0.50140	0.50140	
(3) Contractual Services/ RA/SRF	5.39091	1.80000	-	0.79091	2.69100	-	3.48191	-1.68191	2.57891	
(4) Operational Cost	2.26109	0.50000	-	0.26109	-	-	0.26109	0.23891	-	
<b>Sub-Total of A (1-4)</b>	<b>15.59526</b>	<b>3.80000</b>	<b>-</b>	<b>1.22526</b>	<b>4.19240</b>	<b>-</b>	<b>5.15657</b>	<b>-1.61766</b>	<b>3.08031</b>	
<b>B. HRD Component</b>										
(5) Training	3.00000	-	-	-	-	-	-	-	-	
(6) Consultancy	-	-	-	-	-	-	-	-	-	
<b>Sub-Total of B (5-6)</b>	<b>3.00000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
<b>C. Non-Recurring</b>										
(7) Equipment	9.75000	6.75000	-	0.90563	4.71549	-	5.62112	1.12888	-	
(8) Furniture	1.00000	0.75000	-	-	0.63056	-	0.63056	0.11944	-	
(9) Works (new renovation)	-	-	-	-	-	-	-	-	-	
(10) Others (Animals, Books, etc.)	-	-	-	-	-	-	-	-	-	
<b>Sub-Total of C (7-10)</b>	<b>10.75000</b>	<b>7.50000</b>	<b>-</b>	<b>0.90563</b>	<b>5.34605</b>	<b>-</b>	<b>6.25168</b>	<b>1.24832</b>	<b>-</b>	
<b>D. Institutional Charges*</b>	0.83000	0.19000	-	-	-	-	-	0.19000	-	
<b>Grand Total (A+B+C+D)</b>	<b>30.17526</b>	<b>11.49000</b>	<b>-</b>	<b>2.13089</b>	<b>9.53845</b>	<b>-</b>	<b>11.66934</b>	<b>0.17934</b>	<b>3.08031</b>	

## NAARM Expenditure Head-wise

Sanctioned Heads	Funds Allocated (*)	Funds Released		Expenditure Incurred		Total Expenditure	Balance as on date 31 March, 2014
		2012-13	2013-14	2012-13	2013-14		
<b>A. Recurring Contingencies</b>							
(1) TA	2.22526	0.45526	0.50000	0.45526		0.45526	0.50000
(2) Workshops	3.00000		1.00000		0.05080	0.05080	0.94920
(3) Contractual Services/RA/SRF	5.77605	1.17605	1.80000	1.17605	2.69100	5.66705	-0.89100
(4) Operational Cost	1.89682	0.39682	0.50000	0.39682	0.16370	0.56052	0.33630
<b>Sub-Total of A (1-4)</b>	<b>12.89813</b>	<b>2.02813</b>	<b>3.80000</b>	<b>2.02813</b>	<b>2.90550</b>	<b>4.93363</b>	0.89450
<b>B. HRD Component</b>							
(5) Training	3.00000	-	0.00000	-	-	-	-
(6) Consultancy	-	-	0.00000	-	-	-	-
<b>Sub-Total of B (5-6)</b>	<b>3.00000</b>		<b>0.00000</b>	-	-	-	-
<b>C. Non-Recurring</b>							
(7) Equipment	8.64407	5.64407	0.00000	5.64407	-	<b>5.64407</b>	-
(8) Furniture	0.25000	-	0.00000	-	-	-	-
(9) Works (new renovation)	-	-	0.00000	-	-	-	-
(10) Others (Animals, Books, etc.)	-	-	0.00000	-	-	-	-
<b>Sub-Total of C (7-10)</b>	<b>8.89407</b>	<b>5.64407</b>	<b>0.00000</b>	<b>5.64407</b>	-	<b>5.64407</b>	-
<b>D. Institutional Charges*</b>	0.83000		0.19000		0.05056	<b>0.05056</b>	<b>0.13944</b>
<b>Grand Total (A+B+C+D)</b>	<b>25.62220</b>	<b>7.67220</b>	<b>3.99000</b>	<b>7.67220</b>	<b>2.95606</b>	<b>10.62826</b>	<b>1.03394</b>

## CMFRI Expenditure Head-wise

Sanctioned Heads	Funds Allocated (*)	Funds Released		Total Expenditure	Balance as on date 31 March, 2014
		2012-13	Expenditure Incurred 2012-13		
<b>A. Recurring Contingencies</b>					
(1) TA	2.00000	0.50000	-	-	0.50000
(2) Workshops	4.27000	-	-	-	-
(3) Contractual Services/RA/SRF	6.60000	3.49000	-	-	3.49000
(4)Operational Cost	1.50000	-	-	-	-
<b>Sub-Total of A (1-4)</b>	<b>14.37000</b>	<b>3.99000</b>	<b>-</b>	<b>-</b>	<b>3.99000</b>
<b>B. HRD Component</b>					
(5) Training	3.00000	-	-	-	-
(6) Consultancy	-	-	-	-	-
<b>Sub-Total of B (5-6)</b>	<b>3.00000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>C. Non-Recurring</b>					
(7) Equipment	6.72352	6.75000	3.72352	3.72352	3.02648
(8) Furniture	0.25000	0.75000		-	0.75000
(9) Works (new renovation)	-	-	-	-	-
(10) Others (Animals, Books, etc.)	-	-	-	-	-
<b>Sub-Total of C (7-10)</b>	<b>6.97352</b>	<b>7.50000</b>	<b>3.72352</b>	<b>3.72352</b>	<b>3.77648</b>
<b>D. Institutional Charges*</b>	0.83000	-	-	-	-
<b>Grand Total (A+B+C+D)</b>	<b>25.17352</b>	<b>11.49000</b>	<b>3.72352</b>	<b>3.72352</b>	<b>7.76648</b>

\* Institutional charges will be 10% of the recurring contingencies for the Lead Consortium and 5% for Consortia Partners.

Name & Signature of CPI :

Name & Signature of Competent Financial authority:

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Signature, name and designation of Consortia Leader

## PART-IV: DECLARATION

This is to certify that the final report of the Sub-project has been submitted in full consultation with the consortium partners in accordance with the approved objectives and technical programme and the relevant records, note books; materials are available for the same.

Place: \_\_\_\_\_

Date: \_\_\_\_\_



Signature of Consortium Principal Investigator



Comments & Signature of Consortium Leader

Date: \_\_\_\_\_



## Annexure - 1

## Performance Indicators for Component-1: ICDS

S. No.	Indicator	Total No.
1.	No. of hits on the sub-project website per month	10,000 Approx.
2.	Number of knowledge products developed: a. e-courses b. e-learning modules	102 online CBT Section No. 13
3.	Digitization of number of: a. Ph. D. Theses b. Historical publications	—
4.	Enhanced knowledge sharing and public awareness activities carried out	UAT Workshop organize & 219 personnel sensitized Section No. 14(i)
5.	Development of linkages with a. National organisations b. International organisations	Linkages established with ICAR institutes
6.	No. of articles downloaded from CeRA subscribed publishers	—
7.	Training of critical mass (no. of experts trained)	More than 3000 personnel trained from various ICAR institutes on ICAR-ERP Modules
8.	Number of scientists trained overseas in the frontier areas of science	—
9.	Number of institutes where MIS-FMS implemented	28
10.	No. of scientists participated in conference/seminar etc. abroad	—
11.	Number of novel tools/protocols/methodologies developed	Five modules in ICAR-ERP systems Section No. 7
12.	<b>Publications</b>	
	Articles in NAAS rated journals	—
	Articles in other journals	—
	Book(s)	—
	Book chapter(s)	—
	Popular article(s) (English)	—
	Newspaper article(s)	—
	Seminar/Symposium/Conference/Workshop Proceedings	Section No. 14 (i)
	Technical bulletin(s)	Section No. 12 (B)
	Manual(s)	(12) Section No. 12 (B)
	CDs/Videos	(102) Section No. 13
	Popular article(s) in other language	—
	Folder/Leaflet/Handout/Brochure	3
	Report(s)	—
	Success stories	—

## List of Institutes

Phase I Part I		Phase I Part II		Phase II		Phase II	
Large Institutes		Medium Institutes		Small Institutes		Very Small Institutes	
1	IARI, New Delhi	1	CAZRI, Jodhpur	1	CARI, Izatnagar	1	NBIAM, Mau
2	IVRI, Izatnagar	2	CIAE, Bhopal	2	CARI, Port Blair	2	NCAP, New Delhi
3	NDRI, Karnal	3	CMFRI, Cochin	3	CIBA, Chennai	3	NCIPM, New Delhi
4	CIFE, Mumbai	4	CPRI, Shimla	4	CICR, Nagpur	4	NIANP, Bangalore
5	NAARM, Hyd.	5	CRIDA, Hyderabad	5	CIFA, Bhubaneswar	5	NIRJAFT, Kolkata
6	ICAR Hqrs	6	CRRI, Cuttack	6	CIFRI, Barrackpore	6	NRC Litchi
		7	CSWCR&TI, Dehradun	7	CIFT, Cochin	7	NRC Mithun, Nagaland
		8	IASRI, New Delhi	8	CIPHET, Ludhiana	8	NRC on Camel, Bikaner
		9	ICAR Res. Barapani	9	CIRCOT Mumbai	9	NRC on Pig, Gwahati
		10	IGFRI, Jhansi	10	CIRG, Makhdoom	10	NRC Pom., Solapur
		11	IIHR, Bangalore	11	CISH, Lucknow	11	NRCAF, Jhansi
		12	NBPGR, New Delhi	12	CPCRI, Kasargod	12	NRCB, Trichy
		13	NBSS&LUP, Nagpur	13	CRIJAF, Barrackpore	13	NRCC, Nagpur
		14	PIU-NAIP, New Delhi	14	CSSRI, Karnal	14	NRCC, Puttur
				15	CSWRI, Avikanagar	15	NRCCWF, Bhimtal
				16	CTCRI, Trivandrum	16	NRCE, Hissar
				17	CTRI, Rajahmundry	17	NRCG, Junagarh
				18	DOR, Hyderabad	18	NRCG, Pune
				19	DRR, Hyderabad	19	NRCM& AP, Anand
				20	DWR, Karnal	20	NRCM, Hyderabad
				21	ICAR Resh., Patna	21	NRCM, Solan
				22	IIPR, Kanpur	22	NRCO&G, Rajgurunagar
				23	IISR, Lucknow	23	NRCO, Sikkim
				24	IISS, Bhopal	24	NRCOP, Pedavegi
				25	IIVR, Varanasi	25	NRCS, Indore
				26	NRC PBT, New Delhi	26	NRCSS, Ajmer
				27	NRCR&M, Bharatpur	27	NRCWA, Bhubaneswar
				28	NRCS, Hyderabad	28	NRCWS, JabalPur
				29	PDCSR, Modipuram	29	NRCY, Dirang

30	SBI, Coimbatore	30	PD on Cattle, Meerut
31	VPKAS, Almora	31	PD on FMD, Muketshwar
32	WTCER. B,war	32	PD on Poultry, Hyderabad
33	CIAH, Bikaner	33	PDADMAS, Bangalore
34	CIRB, Hissar	34	PDBC, Bangalore
35	CITH, Srinagar	35	ZCU-I
36	DMR, New Delhi	36	ZCU-II
37	DSR, Mau	37	ZCU-III
38	ICAR Res., Goa	38	ZCU-IV
39	IISR, Calicut	39	ZCU-V
40	ILRI, Ranchi	40	ZCU-VI
41	NBAGR, Karnal	41	ZCU-VII
42	NBFGR, Lucknow	42	ZCU-VIII
		43	DIPA, New Delhi
		44	ASRB, New Delhi



# OPERATIONAL GUIDELINES FOR IMPLEMENTATION OF ICAR-ERP

ICAR-ERP aims to equip the Indian Council of Agriculture Research with the cutting edge technology. It integrates all of the organizational processes by allowing the modules to share and transfer information freely. In addition, all information is centralized in a single relational database accessible by all modules, eliminating the need for multiple entries of the same data. Since ICAR-ERP is a uniform platform, it ensures that there is no discrepancy in the information that is processed. It ensures to bestow impressive strategic, operational and information-related benefits to ICAR in long run.

## ACCESS TO ICAR-ERP SOLUTION

ICAR-ERP is hosted at IASRI in fail safe mode and can be accessed through <http://icarerp.iasri.res.in>. The system can also be visited through the MIS/FMS project portal available at <http://iasri.res.in/misfms/>.



User can access the system through a web browser. Processes related to all the functional areas are accessible and roles & responsibilities have been defined for different types of users. All the approval hierarchies have been established in the system. Individual Login-Id and Passwords have been created for every Scientific, Technical and Administrative personnel. User can refer the online user manuals and Computer based Training (CBT) Material for each functional area available at the MIS/FMS site <http://iasri.res.in/misfms/>.

## SYSTEM & BANDWIDTH REQUIREMENT

- System availability in different sections of Administration, Finance, PME Cell and to all the institute personnel.
- Desktop/ Laptop Configuration (minimum):  $\longrightarrow$
- ICAR institutions should have high bandwidth connectivity (preferably NKN): 100 Mbps leased line is suggested for National institutes and Deemed Universities and at least 10 Mbps for small institutes.
- Java should be installed on the computers so that the solution can run smoothly. The guidelines to install Java are available at <http://www.iasri.res.in/misfms/> under DOCS link.

Processor	i3 / i5 / i7
RAM	2 GB
HDD Space	80 GB
Operating System	Windows

## CORE TEAM AT THE INSTITUTE

- A core team which is fully trained in carrying out different processes in various functional modules of the ICAR-ERP is required to be constituted at each institute. This team should be able to either resolve the issues related to the operation of the ICAR-ERP in their organization or can communicate effectively with IBM support team at IASRI to

resolve the issues and queries. The core team must have a member who can act as the IT SPOC for sharing the responsibility of system configuration and role assignment in case of transfer of personnel from division/institute.

- Data Digitization team, headed by Administrative head (CAO/SAO/AO) as nodal officer should be constituted at the Institute. This team should include members from the areas of Human Resource, Payroll, Finance, Supply Chain Management (Procurement & Stores) and PME to facilitate collection/compilation/ verification of data.
- Historical data of the organization (personal HR records, Finance, Assets, Payroll and Pension records) should be entered in excel templates (already designed) by the external agency and data digitization team should verify the data entered in those excel templates by the external agency.

## IMPLEMENTATION REQUIREMENTS

- **Training and Support:** For smooth functioning of the system, M/s IBM will depute its engineers to initiate the implementation and thereafter will provide one month onsite support in all institutes. Sitting space is to be provided in office premises for implementation team during the period of onsite support. Well-equipped training lab should be available for conducting the training sessions. During the one month of onsite support, personnel will be provided trainings on different modules of ICAR-ERP. Offsite support will continue for 3 years, from the centralized location at IASRI. Helpdesk setup has been created at IASRI and support will be available through phone call and email.
- **Providing User ID and Password:** Each ICAR employee will be assigned a User ID and Password for accessing the system. These User IDs are unique and generated by the system. The User ID generated is a six digit number and it looks like 000023.
- **Assigning the Roles and Responsibility:** Various roles and responsibilities held by a personnel in an organization will be defined during the implementation. Information on the current job profile of institute personnel needs to be provided to the implementation team. *Example:* Person performing DDO role in the institute needs to be assigned this particular role in the system.
- **Creating Approval Hierarchy:** Approval hierarchy will be configured in the system for projects, purchase requisitions, purchase orders and self-service HRMS transactions. Information in specified templates needs to be provided to the implementation team. *Example:* Leave will be approved by Reporting officer and then by Reviewing officer.
- **Masters and Open Transaction Data Upload:** During implementation, masters information like vendor's information, pensioner's information, bank accounts details, cheque series, schemes, budget, employee supervisor details needs to be provided. Open transactions like outstanding advances, leave balances, progressive expenditure details, on hand stock of items maintained in stores needs to be provided in specified templates.

## POST IMPLEMENTATION GUIDELINES

- Once Go-Live is announced for the institute, Competent authorities need to ensure the following:
- All bills creation and payments should be done only through the system. Bill no. and payment voucher no. should be system generated.
- Purchase requisition should be created and approved only in system. Purchase orders should be system generated.
- Material receiving and issue transaction should take place in system. Store's receipt and issue register should be generated through the system.
- Payroll processing should be through the system.
- Creation and maintenance of service book records. Generation of orders like Joining letter, Promotion order, Transfer order, Retirement related forms (3,5,7,IA) should be from the system.
- Self Service transactions like leave application, income tax declaration should be done in the system and updating the service book details should be initiated through the system.
- All new projects should be created in the system and relevant proformas like Status Report, RPP-I, RPP-II, RPP-III and RPP-IV should be created through the system.

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