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**A Compendium of project profiles  
And a digital archive of project records in KFRI**

[Final Report of the Research Project RP 576/2009]

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Application Developed by: **PG Ragi**

**Kerala Forest Research Institute**  
Peechi 680 653, Kerala

**September 2012**

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## Preface

The Kerala Forest Research Institute (KFRI) was established as a public R & D institution in 1975. At that time information technology was only in its developmental phase and computer was yet to emerge as a common data processing equipment. Thus, as with any other institution then, KFRI also functioned utilizing the prevalent technologies and conventions of the print phase.

As a premier R&D institution, KFRI served forestry and environment during the last 36 years, exploring, investigating and providing expertise and training to diverse end users such as government departments, entrepreneurs, environmental agencies, NGOs and various sections of the society. In its infantile phase, KFRI had but limited number of research projects to deal with. Over the years, in materializing the desired goals, the scientists of the institute conducted over 650 research investigations, undertook numerous extension programmes, and activities, depending up on the requirements of the society. This emanated piles and piles of files and other records pertaining to research programmes, science management, and the compounding administrative records associated with. More than record keeping, quick access to relevant records on a real time basis was becoming too unwieldy.

In the mean time, with the advent of computers – particularly the personal computers (PCs) – information technology (IT) took a grand leap so as to be able to store and access large quantities of information with amazing speed. Initially the techniques were used for the management of larger repositories such as libraries, musea, archives and for managing multi-user databases such as for air and rail reservation, banking, etc. Eventually, in the new millennium the same techniques were extended, transformed and enabled to function as paperless electronic offices. Compared to the paper office, the e-office is incredible, in terms of its information accessing speed and the multi-user capability.

As a matter of fact, KFRI was also looking forward for an opportunity to improve its administrative efficiency, which was increasingly affected by the limitations of the print phase. During the last five years, the matter was discussed with IT specialists both within and outside the institution, including professionals. Partly because research management is an entirely different field differing from other commercial activities and partly because, transforming existing commercial packages to the requirements of the R&D set up through apt customization procedures, was a bit complex.

In order to take advantage of the capabilities of the electronic information accessing, the investigators of this project initiated a programme for organizing a digital archive of records relating to research projects of the Institute. Advancing with the programme, the investigators have now come up with a package for archiving, accessing and communicating across the staff of the Institution for research management and administration.

I understand that, the entire technical aspect of the programming effort was accomplished by Miss PG Ragi, Project Fellow, who holds Masters degree in Computer applications. Miss Ragi's efforts deserve recognition and I congratulate her and the investigators for the achievements they have made.

**Dr. KV Sankaran**  
Director

## **Acknowledgements**

This report is a precursor to the Virtual Office-KFRI. This was made possible by the continuous support and encouragement by Dr. KV Sankaran, Director, KFRI. The grant received from KFRI-Plan Fund through the years 2009-2012 has enabled us to experiment on the philosophy and techniques required for making the virtual office functional and suitable to the environment of the R&D institutions.

The development of the software application was done by Miss. PG Ragi, Project Fellow in the project. She made every effort to make the package professional. The professional competence of the package, its fast accessing capability and the smart architecture are creditable only to her.

The investigators have been responsible for analysis of the information requirement of the Institute, suggesting models for capturing information, identifying the channels of information flow and the various modules required for that, evolving some salient strategies for optimization of search and in organizing the digitalized archives of the VOK.

Editorial suggestions offered by Dr. M Sivaram and Dr. GE Mallikarjunaswamy, Scientists of KFRI, have been helpful in improving the report.

Dr. K. Swarupanandan

Mr. KH Hussain

Dr. KV Bhat

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# **A Compendium of project profiles And a digital archive of project records in KFRI**

## **Abstract**

This is the Final Report of the project, KFRI RP-576/2009: *A Compendium of project profiles and a digital archive of project records in KFRI*, supported by KFRI Plan Grant and implemented by Mr. K. Swarupanandan, Mr. KH Hussain and Mr. KV Bhat. This report has brought out before the closure of the project (May 2013), as two of the Investigators (KS, KB) retire during September-October 2012. The project however, has to continue in the coming years also as it is part of the research management mechanism of the the institute.

Work in any corporate establishment is implemented by taking appropriate decisions. This necessitates examination of relevant records at various hierarchical points, when digital records facilitate multiple accessing and at high speed. As a matter of fact, in the last 10 years, many establishments have transformed to e-offices. Nevertheless, the state's R&D institutions suffer from the ill effects of the paper phase of office management. An experiment was conducted to utilize IT for data archival, data sharing and file flow in KFRI. Thus, the objectives of the project were: (a) To organize a *digital archive* of project records and a quick search facility, and (b) To develop a *database of R&D projects* containing different attributes of the projects, so as to take care of the reporting requirements.

All essential records pertaining to the R&D projects dating 2000 onwards were digitized and stored as *pdf* files and organized into a digital archive, the *Virtual Office (VOK)*. The names of these files have been structured to contain date-key, subject keywords and keyword separators. Some user tools and external links have also been added to the application.

The VOK now contains three modules: (i) The Digital Archive (*per se*), (ii) the User Tools, and (iii) the External Links. The backend of the package is a database, containing over 12,000 individual records. As the programme was originally intended for management of research, more than 75% of the records now belong to R&D projects. Selected administrative records have been added to it at a later date. The records are organized in the SQL-Server environment and most of the programme part is written in C#.

**Mod. Digital Archive** (*per se*) has been compartmented into several Arch-Sects which in turn are divided into several Arch-Subsects. The menu bar provides handles to various Arch-Sects and pop-down menus from the Arch-Sects provide access to the Arch-Subsects. A search engine (search box) enables quick search of records in each of the Arch-Sects and Arch-Subsects. The various Arch-Sects are: (i) Administration, (ii) Research Management, (iii) Primary Data, (iv) Utilities, and (v) Miscellaneous. The Arch-Subsects of the various Sections are as given below.

- **Administration:** KSCSTE, KFRI Procedures, Proceedings-Notes-Circulars, SOs, RFD, Reviews (KSCSTE, STEC, PEA, etc), Information Act, Annual Reports, MPRs, Accounts, Audit, Engineering, and Promotion Assessment.

- **Res. Management:** Review Bodies (RC, IRG), Projects Lists, Project Records, Res. Management (*per se*), Academic Progs (M. Sc., Ph. D.), Training Progs, Extension Progs, and Future Progs.
- **Primary Data:** Image Bank, Map Bank, Primary Data (from projects), and Power Points.
- **Utilities:** Forms & Formats, Calendar, Staff profiles, and Other Utilities.

**Mod. UserTools** comprises of various facilities for extraction of information and are given as image buttons. The user tool buttons provided are given below.

- **Inputs:** Facilitates reporting of work done, achievements, activities, events, etc. for various review purpose such as IRG, Research Council, KSCSTE, etc.
- **Thapal:** Is KFRI's e-Postal Section, the official communication channel. The file flow at the moment is designed to be instructed by the user, but eventually this will have to be guided by approved templates of file-flow-channels.
- **Mail:** Is a LAN-based communication system, independent of the web-based mailing systems, and will work without failure. Thapal actually makes use of the Mail facility, but has been kept separate, as this would be the most-used communication channel.
- **Staff Profiles:** Is a semi-automated organizer of individual activities and profiles created for the benefit of the staff as well as the administrators.
- **Work area:** Is a location where properly named files are deposited for checking and uploading into the Archive.
- **Safestore:** Is a protected 1GB server space allocated to scientists and other staff.
- **Projbase:** Provides a handle for filtering projects based on parameters such as PI, Funding agency, Date of closure, and a number of other parameters. It primarily serves to generate reports and the facility is available only with the Director, Registrar and the Research Coordinator.
- **Events:** Is an e-notice board that notifies forthcoming events.

User tools have also been provided for viewing, downloading and printing the records in each page of the VOK, wherever applicable.

**Mod. External Links** provides links to G-Mail, KFRI-Website and the KFRI-Library Portal, and navigate across external information sources by remaining in the VOK-environment.

VOK is a multi-user office management system specifically designed for KFRI. It can be accessed using the web address '<http://10.10.170.1/100>', within the local area network of KFRI. Access to VOK is restricted to KFRI staff through password control and is prohibited from sharing with the external. Access to various Modules, Sections and Subsects of the Archive and utilities of the VOK has been discriminated across various sections of the staff, using passwords.

VOK is the precursor for the E-office of KFRI; it requires modification, addition of new modules, a systematic scheduling of work and its implementation. Some of the Arch. Subsects are blank at the moment (eg. Map Bank, Power Points, KFRI Calendar) but are envisaged to be organized later. Some more modules and user facilities are to be added later as the staffs become acquainted with office automation. Three important facilities that are to

be added to the VOK are: (i) A date-based numbering system for the records, (ii) A module facilitating various financial computations (of salary, tax, financial projections, etc), and (iii) A digital signature facility, in order to provide authenticity to approvals provided by the Administration.



# Chapter 1. Introduction

## 1.1 Background

The Kerala Forest Research Institute (KFRI) is an institution primarily catering to the forestry research requirements of the State. This institution was established in 1975, along with five other sister R&D institutions, under the Science, Technology and Environment Department of the Kerala State. All these institutions were later amalgamated under the Kerala State Council for Science, Technology and Environment (KSCSTE) in 2003.

Banking, railway, aviation, supermarkets, etc, are commercial establishments, where implementation of IT is of instant economic advantage. In comparison R&D institutions are not so and IT has not embraced the management environment of these institutions. As a matter of fact, management of these institutions continues to remain in the print phase. Though these institutions are in the forefront of their respective subject areas, their administrative set up remains primitive.

*The project mode of programme implementation in KFRI:* Most programmes in KFRI are implemented in a project-mode. In the last 10-15 years, the institution diversified its activities tremendously, which include:

- An increase in the number of research initiatives/projects
- Rapid increase in the extension programmes/activities
- Enhanced field trials and infrastructure development initiatives

As a result, there are 100-120 on-going projects in the institute, which are in various stages of implementation, completion, report writing.

*Limitations of search in print-medium and advantages of the electronic medium:* Several thousands of records pertaining to different programmes of the institute (KFRI) have now accumulated and a few thousands of these are always in current use. As many as 55 scientists and nearly 70 non-scientific personnel are involved in the implementation and management of the programmes.

Implementation of projects in a corporate establishment is by making timely decisions on modalities and strategies. These decisions are taken at several hierarchical points, at varying points of time, depending up on the needs, financial requirements, constraints, and so on. The decisions are then communicated to relevant locations and individual(s) who will proceed to implement the work as per the directives/advice/orders given.

The decisions, however, are not taken *de novo*, but based on relevant background information available in records, knowledge available with experts, or up on certain management strategies prescribed by the existing rules and regulations of the controlling office. This necessitates an examination of the relevant records at various hierarchical points. In such a situation, where, many officials are involved in decision making, print medium is not efficient in delivering copies of the records to each of the officials. Accessing the right record on a real-time basis is also quite difficult with the print medium, particularly when the size of

the records is not small. The print medium also cause to delay the decision making process and in conveying the outcome.

On the other hand, the electronic medium is incredibly fast for search operations. Here, being guided by key words, familiarity to locations of the files/records (a pre-requisite in the case of print-files) is immaterial. In addition, the same record can be accessed by many people simultaneously and there is no need to copy it to each location. In the last 10 years, many establishments such as libraries, government departments, district offices, banks, railways, aviation companies, etc, have taken advantage of the digital world, by transforming into e-governance.

*An electronic office for KFRI:* It is time that KFRI also get equipped with e-management for efficient functioning. With due thoughts given to the matter, the investigators conceived a facility development project, so as to evolve a software package for the purpose. A 3-year project was conceived for the purpose and support obtained through the KFRI Plan Fund (KFRI RP-576/2009). The entire work presented in this report was carried out as part of this project.

## **1.2 Objectives**

1. To organize a *digital archive* of Project Records (research/ consultancy/ extension projects) and to enable fast search through an efficient search engine.
2. To develop a *database of projects*, where all frequently required attributes of all projects are tabulated, so as to take care of the reporting requirements

## **1.3 Methodology**

In the first phase, all the available records pertaining to the research, consultancy and extension projects were digitized using a scanner and stored as PDF files. These files have been organized into 30 archives, each on a given aspect of research management. The names of the files were organized to contain frequently required attributes, in order to facilitate quick access. The software application is named Virtual Office-KFRI (VOK). The accomplishments in technical programming solely belong to Miss PG Ragi, Research Fellow in the project.

The following paragraphs describe the features of the VOK.

## **1.4 Accessing the VOK**

The VOK is intended as a multi-user system and is accessible for any permanent staff of the Institute. The steps for accessing the package are given below:

- Open the Internet browser
- Type ‘**http://10.10.170.1/100**’ in the browser
- Press ‘**Enter**’ – This will take you to the Homepage.
  
- In the homepage, Click **Log In** – This opens up a dialogue box for registration.
- Click the link [Register](#) – This enables one to enter the Registration Window.
- In the Registration Window, one has to provide a few personal details:
  - User name
  - e-mail ID
  - Password
  - Other information, as requested
  - Press ‘**Enter**’

UP on providing the required information for registration, one has to inform the VOK-Administrator either over phone or through e-mail. You will be able to use the application only after the VOK-Administrator provides password controls for your privileges and entry.

Once you are registered with the package, for all subsequent sessions, the package will ask only your e-mail ID and password.

If you desire to change your password, use the **Change Password** provision in the homepage, immediately below the ‘Log In/Log Out’ button.

### **1.5 The Virtual Office-KFRI (VOK)**

The *Virtual Office* (hereinafter, VOK) has two built-in modules: (i) The Digital Archives (The Archives), and (ii) The User tools. The Archives comprise 30 individual archives containing various records, data from projects, images, and the associated search engine. The User tools, as it sounds contain many tools for data input, extraction of information, communication, record tracking, e-alert, safe storage, access to external web sources, etc. The Archives are organized into five subsections as given in Table 1. There are 11 user tools/ functions which are given in Table 2.

Table 1. Subsections of the Archives, their functions and the target users.

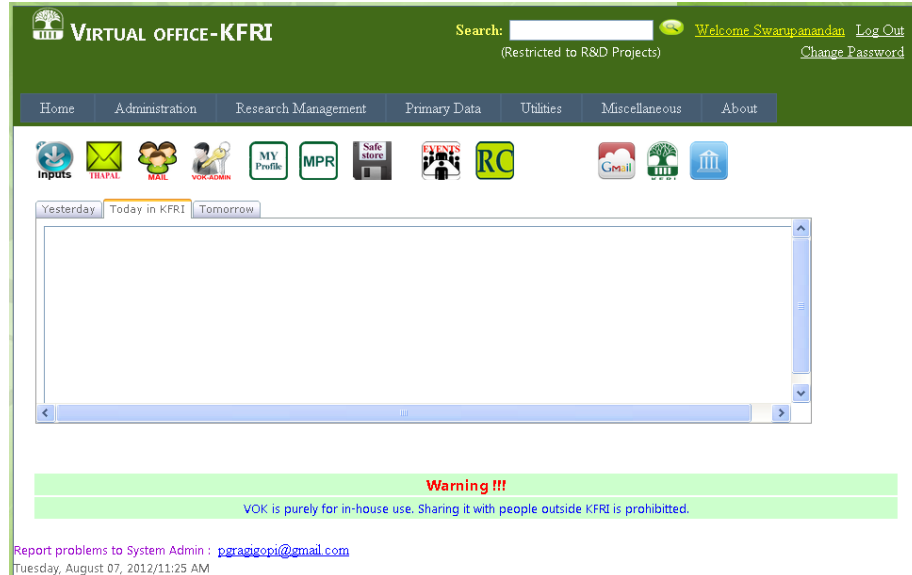
<i>No.</i>	<i>Subsections</i>	<i>Contents/Functions</i>	<i>Target users</i>
1.	Administration	Admin. records	Admin, RME, Scientists
2.	Res. Management	Project records	Admin, RME, Scientists
3.	Primary data	Deposited of data, Images, Power Points	Scientists
4.	Utilities	Phone numbers, e-mail IDs	All staff
5.	Miscellaneous	Unclassified records	RME

Table 2. User tools for different functions contained in Module 2.




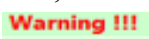
<i>No.</i>	<i>Tools</i>	<i>Functions/ Contents</i>	<i>Target users</i>
1.	Inputs	Facilitates various inputs	All staff
2.	Thapal	Official Postal Section of KFRI	All staff, Admin
3.	Mail	Internal e-mail (LAN-based, independent of Web-email)	All staff
4.	Staff profiles	Of individuals	All staff
5.	Workarea	Files from day-to-day work	RME staff
6.	Safestore	Protected 1GB space	Scientists
7.	Projbase	Database of projects, can be filtered, Report generation	Scientist, Admin
8.	Events	Notifies current events on desktops	All staff
9.	G-Mail	External mails	All staff
10.	KFRI-Website	Information on KFRI	All staff
11.	KFRI-Library portal	e-Library resources	All staff

## 1.6 The Home Page

Once your access to the package is cleared through, the Homepage will look as given in Figure 1.




The homepage contains the following:

- a. Search Box 
- b. Menu bar 
- c. User tools 
- d. Events 
- e. Message 

**Search Box:** This search box is devoted purely to R&D projects. It cannot be used for searching any other sections of the VOK's Archive. By default the R&D projects include the following categories:

- i. AP  Attachment Programmes
- ii. CP  Consultancy Projects
- iii. EP  Extension Projects
- iv. ESP  Emeritus Scientist Programmes
- v. RP  Research Projects


Using the search box, one can either search for records relating to a project category, a project number, a scientist, a funding agency, a subject keyword, and so on. In order to do this, simply enter the keyword(s) in the search-box and click the search-button, . Names of all the files containing the search word(s) will be displayed in a box. Any of these files can be

viewed or downloaded using the respective buttons. For more details on effective search, please see Sect. 2.4.

**Menu bar:** The Menu bar contains the handles to the five sections of Archives, the ‘Home’ and the ‘About’ bars (Fig. 2).



















Fig. 2. Sections of the Menu bar.

**Home:** The  menu gets back to the VOK-Homepage from any location. The rest of the buttons in the Menu bar assist to navigate across the various sections of the VOK-Archive and accessing specific record(s).

**About:** This provides only some technical details of the VOK.

**User tools:** The user tools and their functions are given below:

- |                        |   |                          |   |
|------------------------|---|--------------------------|---|
| a. Input               |    | <input type="checkbox"/> | Provides e-reporting facility to registered users                             |
| b. Thapal              |    | <input type="checkbox"/> | This e-facility helps to communicate with the Administration of the Institute |
| c. Mail                |    | <input type="checkbox"/> | A LAN-based e-mail facility   |
| d. Contact VOK-Admin   |  | <input type="checkbox"/> | Is a tool to reach the VOK-Administrator                                      |
| e. My Profile          |  | <input type="checkbox"/> | Provides a self-generated list of projects to individual scientist            |
| f. MPR                 |  | <input type="checkbox"/> | Facilitates e-reporting Monthly Progress Reports (MPRs)                       |
| g. Safestore           |  | <input type="checkbox"/> | Enables to drop in and extract important files from a protected location      |
| h. Events              |  | <input type="checkbox"/> | Enables to track record of the events that took place in KFRI                 |
| i. Projbase            |  | <input type="checkbox"/> | Enables to filter project lists based on a variety of attributes              |
| j. G-Mail              |  | <input type="checkbox"/> | Enables to go to the G-Mail   |
| k. KFRI-Website        |  | <input type="checkbox"/> | Link for KFRI Website   |
| l. KFRI-Library Portal |  | <input type="checkbox"/> | Helps navigate through the Library Portal                                     |

**Current Events** [  ]: This display box of *Current Events* is a desktop e-alert system of current events in the Institute. Once inputs are provided for display, the software detects the dates and displays the programmes in the display box for three consecutive days, the previous day of the event, one day prior to the event, the day when the programme is on, and the day-after the programme is over. Inputs for ‘Events’ announcement are to be provided using the  button.

**Message:** The **Warning !!!** message simply informs the users that the VOK is only for internal use and it should not be shared with the external world, without proper endorsement by the Director, KFRI.

## Chapter 2. The VOK's Archives

### 2.1 General Features of the Archives

**The back-end of VOK:** The backend of the VOK is a database of digital records in SQL Server; the total number of files now is c. 12,000.

**Structure of the Archive:** The archive has several sections and subsections. The five sections are: Administration, Research management, Data archive, Utilities, and VOK-Help.

**The Project records:** As the programme was originally intended for management of research in the Institute, more than 75% of the records belong to research, extension and consultancy projects and attachment programmes, including emeritus scientist programme. Administrative records and archives of primary data have been added later.

### 2.2 Archives of the VOK

Thirty Archives (Arch.) organized under five archive sections are given below.


<b>Arch. Sect. I. Administration</b> (Incl. Extension of project tenure)	Arch. 18. Research management Docs
Arch. 1. KSCSTE	Arch. 19. Academic programmes (Ph. D., M. Sc.)
Arch. 2. KFRI Procedures*	Arch. 20. Training programmes*
Arch. 3. Proceedings, Notes, Circulars	Arch. 21. Extension activities*
Arch. 4. Sanction Orders (SOs)	Arch. 22. Future programmes
Arch. 5. RFD (Results Framework Doc.)	
Arch. 6. Reviews (by KSCSTE, STEC, PEA)	<b>Arch. Sect. III. Primary Data</b>
Arch. 7. Information Act (Q & A) *	Arch. 23. Image bank
Arch. 8. KFRI Annual Reports	Arch. 24. Map bank
Arch. 9. MPRs (Monthly Progress Reports)	Arch. 25. Primary data (From projects)
Arch. 10. Accounts *	Arch. 26. Power Points (Presentations)
Arch. 11. Audit	
Arch. 12. Engineering (Civil Works)*	<b>Arch. Sect. IV. Utilities</b>
Arch. 13. Service Matters *	Arch. 27. Forms & Formats
Arch. 14. Promotion Assessments *	Arch. 28. KFRI Calendar
	Arch. 29. Other Utilities
<b>Arch. Sect. II. Research Management</b>	
Arch. 15. Review bodies (RC, IRG)	<b>Arch. Sect. V. VOK-Help</b>
Arch. 16. Project lists (at various time points)	Arch. 30. VOK-Help
Arch. 17. Project Records	

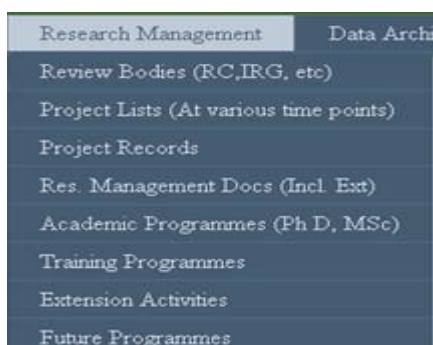
\* Archives yet to be organized.

## 2.3 Accessing the files of the Archives

**Popup menus:** Clicking on any one of these buttons will pop-down respective submenu(s) (Fig. 3) and clicking on the submenu(s) will display the names of files the archive contains (Fig. 4).

**Viewing and downloading:** The procedures for viewing and downloading the file(s) are given below.

- Click any tab (eg. KSCSTE) – This will display all records in that Archive.
- Use the mouse to scroll through the filenames.
- To view the file, click on the filename and then the view button.
- To download the file, click on the download button, .



- [2012-02-02=EP 02=SO=Estt-809-1999=Purchase-Plant Propa](#)
- [2012-02-02=EP 154=PROCEEDINGS=Estt-1994=Extension-'](#)
- [2012-02-02=EP 224=SO=Estt-811-2011=Expenses-One-Wee](#)
- [2012-02-02=RP 403=SO=Estt-812-2003=Daily Wages-Sub ce](#)
- [2012-02-02=RP 533=SO=Estt-808-2007=Mazdoor.pdf](#)
- [2012-02-02=RP 536=SO=Estt-815-2007=Daily Wages.pdf](#)
- [2012-02-02=RP 573=SO=Estt-810-2009=Labour Charges.pdf](#)
- [2012-02-02=RP 605=SO=Estt-814-2010=Mazdoor.pdf](#)
- [2012-02-02=RP 628=SO=Estt-807-2011=Labour Charges-Ex](#)
- [2012-02-04=RP 606=SO=Estt-819-2010=National Training-Si](#)
- [2012-02-04=RP 631=SO=Estt-816-2011=Joining-Research Fe](#)

Fig. 2. Popup menu of the Section Research Management

Fig. 3. Listing of records/ files in a section of the archive

**Password control and discrimination of access:** Access to the archive is governed by passwords. It is also discriminative, in the sense that, different officials have differing access levels. The heads of administration, the Director and the Registrar can view all the records. Most scientists can access documents relating to their projects but cannot browse through the files of others' projects. In order to eliminate unwanted future complexities, confidential records, confidential reports, etc, have been kept away from archiving.

**Optimization of search speed:** The search speed is optimized by two means: (1) By providing a normative structure for the file names by incorporating desirable keywords in the filenames, and (b). By framing a series of query functions in the SQL environment.

## 2.4 The filenames

**The Normative structure of the filenames:** Each filename has three elements: (a) *keyword sets*, (b) *keyword-set separators* (=, an equal symbol) that discriminate the keyword sets, (c) *keyword-separators* (□, a dash) that discriminate keywords in keyword sets, and (d) *file extension codes* (.doc, .ppt, .xls, .tif, .pdf, .bmp, etc), which are file type identifiers. The



keyword-set separators (=) and keyword-separators (□) simply serve to quick visual discrimination of desired files across a search result.

**The Keyword sets in filenames:** Each filename has five or more keyword sets; some times it may be less also. The key sets pertain to date, project number, record type, funding agency and research subjects. The key sets have been selected based on the most frequent search operations identified on the basis of the last four years' experience. An example of file naming is given in Fig. 4 and its various key sections also identified.



**Filename: 2008-6-12=RP 516=PIN=Swarup=DBT=Species recovery-Dipterocarpus-Humboldtia.doc**



<i>Date</i>		<i>Project Number</i>		<i>Record type</i>		<i>Scientist</i>		<i>Funding Agency</i>		<i>Subject key words</i>	<i>File extension</i>
2008-6-12	=	RP 516	=	PIN	=	Swarup	=	DBT	=	Species recovery-Dipterocarpus-Humboldtia	.doc




Fig. 4. An example of filename in VOK and its various key sets.

Although the sequence of the key sets in the filenames need not be uniform, generally the date key is given first, followed by project number (if available) and the rest in any order. Beginning with the date key allows the filenames in a search result to be arranged in the order of the dates of documents and therefore enables quick access to the recent records.

**Advantages of the normative filenames:** The above-mentioned elaborate file addressing system has been designed in order to provide maximum flexibility for search success-rate of search operations will depend up on how the keywords are incorporated into the filenames. This requires some scientific knowledge and an imagination of the contexts in which the documents would be accessed. Anyone can develop this expertise through a few-days on-hand training and subsequent working experience.

**Search of desired records** : Search for desired records can be performed in many different ways. There are two search input boxes. The first search box is situated on the top of the home page and is devoted for search operations of the records related to R&D projects. Any project number, project type, name of scientist, funding agency, word expected in the project titles, year, etc, can be input as a keyword. Input of the keyword in the dialogue-box followed by a click on the search button  will display all records containing the keyword in the title. The filenames are listed in a display-box and can be scrolled through.

By default, the files are arranged in chronological order so that recent records are placed at the end of the list. If the record/file list resulting from search is large, it can be trimmed down by providing improved keywords. There is another way of narrowing down to relevant records. This involves identifying non-relevant records and hiding them with the help of the  button. The  button can be used to go back to the original search-list.

A second search-box appears above the display-box, when search is attempted on any other sections of the Archive   . Here also, the procedures of search are the same as in the previous one.

## 2.5 Archives Sect. Administration (Admin)

This sectional Menu bar prompts a pop down menu for many subsections of the archive, as given in Table 4.

Table 3. Subsections of the archive, Administration.

<i>.Archive set</i>	<i>Archives of Administration</i>	<i>Records organized</i>	<i>Additions required</i>
1	KSCSTE	2003	2004-2012
1.	KFRI Procedures*		
2.	Proceedings, Notes, Circulars	2006-2012	2003-2005
3.	Sanction Orders (SOs)	2011	2010
4.	RFD (Results Framework Document)	2011	
5.	Reviews (by KSCSTE, STEC, PEA, etc.)	2009-2011	
6.	Information Act (Queries & Answers) *		
7.	KFRI Annual Reports	2009-2009	2010
8.	MPRs (Monthly Progress Reports)	2009-2011	2012
9.	Accounts *		
10.	Audit	2009-2011	
11.	Engineering (Civil Works)*		
12.	Service Matters *		
13.	Promotion Assessments *		

\* Subsections to be organized fresh

**Live Archives:** Out of the 14 archives for only some have been organized now. At the moment, the following archives are usable: KSCSTE-Rules, Proceedings, Notes & Circulars, Sanction Orders (SOs), Review of progress (by KSCSTE, STEC, PEA, etc.), KFRI Annual Reports, MPRs (Monthly Progress Reports) & Audit. Some Archives require addition of recent/earlier records, which may be of future value.

**Archives to be organized:** Some Archives are to be organized new, as indicated in Table 4. On a careful examination of records pertaining to Administration at length, many more subsections will have to be organized new.

**Archive 1. KSCSTE:** This Archive comprises various documents pertaining to the KSCSTE. It also contains chapters of the *Manual of KSCSTE Rules-2003* (KSCSTE. 2003. *Service Rules and Other Relevant Rules and Regulations* of the KSCSTE). Several subsequent amendments and modifications have been brought out for the rules contained in the manual. Digital copies of these documents have to be organized, so that, the archive becomes useful to the staff as well as the administrators.

**Archive 2. KFRI Procedures:** KFRI had a set pattern of office procedures until 2003. In 2003, when the KFRI was amalgamated with the KSCSTE, many of its procedures were transformed to that described in the *Manual of KSCSTE Rules-2003* and its subsequent amendments. KSCSTE being an autonomous institution its office procedures are deviant from that of governmental procedures. KFRI also continues certain in-house procedures for materializing some activities. Standardization of the procedures and making them available for the staff through the VOK is suggestive, as this would facilitate administrative simplicity and efficiency. For automation of office procedures, document- and information-flow channels are to be defined and moulded. The file flow has to be regulated using these procedural templates. Some preliminary work has been done by K. Swarupandan and Mr. AR Rajan. However, the procedures have to be finalized and approved by the competent authority of the Institute.

**Archive 3. Proceedings, Notes, Circulars and Committees:** Communications addressed to the staff are of various categories. Apart from the communications addressed to individuals, a large majority of them are addressed to the entire staff or certain sections of the staff. These are of three kinds, *viz.* Proceedings, Notes, and Circulars. Except for some of the circulars and notes concerning the day-to-day functioning, most of these documents are of value, as they are to be accessed frequently and are therefore to be archived. Very important documents for the period 2006-2012 have been already digitized and added to the Archive. Some very relevant documents from 2003 to 2005 are to be added to the stock.

**Archive 4. Sanction Orders (SOs):** Sanction Orders is yet another category of communication issued by the administration to one or more individuals of the staff for performing an activity. As the institution functions in a project mode, most of these relate to individual projects. These SOs are usually issued in serial order. SOs for the year 2011 have been made part of the archive and those from one or two preceding years (2009-2010) might also be relevant; these are to be organized new.

**Archive 5. RFD (Results Framework Document):** The Results Framework Document is a monitoring mechanism introduced by the Government in 2010. Six-monthly evaluation of the performance of various departments is conducted using the framework. All KSCSTE institutions are supposed to provide the required information in given formats. Hence a section has been constituted for the purpose.

**Archive 6. Reviews (by KSCSTE, STED, PEA, etc.):** The work conducted by the institute, progress made and the achievements (KFRI) are periodically reported to various superior bodies such as KSCSTE, Science and Technology Department (STED), Planning and Economic Affairs Department (PEA). Very often the reporting made to one body has to be repeated ditto or in some altered form to other bodies. So these documents are included in this Archive.

**Archive 7. Information Act (Q&A):** Documents relating to this subject are resident with the Registrar. A good percentage of the queries are repetitions of what has been requested by others earlier. Because of this redundant nature archiving the documents are of use value. This Archive has to be organized new.

**Archive 8. KFRI Annual Reports:** Annual Reports are documents containing summary of activities, work done, achievements of the institute during one year tenure. Summaries of completed and on-going programmes, important developments, new programmes initiated, outcomes from academic programmes, relevant news items on personal resources, staff details, etc, are the contents of the document. It also contains copy of audited balance sheet of the institute. During the last few years, the Annual Reports are being compiled and brought out by the RME. The soft copies are therefore archived, because of its future use values.

**Archive 9. MPRs (Monthly Progress Reports):** Monthly Progress Reports submitted to the KSCSTE are archived in this section.

**Archive 10. Accounts:** This is an important Archive to be organized; once organized, this will be very useful for the administrators. Budget plans, grant allocations, monthly financial statements of the institute, finance related communications, etc, should form part of the archive. It should also have modules for computation of salary of staff, tax calculation, financial projections, etc. The records will be helpful for maintaining financial order.

Monthly financial statements of individual projects, however, have to be posted on to the Subject. Project Records. Organizing these documents would be quite useful for the concerned scientists in preparing the Expenditure Statements and Utilization Certificates. Efforts need to be made to organize the records.

**Archive 11. Audit:** In addition to the audit suggestions made by the Internal Auditor and the consequent regulations made effective, every year a team of auditors from the Audit Department do visit and make queries. A good amount of the queries across the audit parties during consecutive years are repetitive. Therefore, the queries and the explanations provided are archived in this section. Most of the queries already archived pertain to the research and extension projects. General queries pertaining to the institution are with deposited in the Administration. A complete set of these queries and the respective explanations are useful and needs to be aimed for.

**Archive 12. Civil Works (Engineering):** This Archive is vacant at the moment and is intended for documents pertaining to civil works of the Institute.

**Archive 13. Service Matters:** Once assembled, this Archive would be quite useful for personnel management.

**Archive 14. Promotion Assessments:** Vacant at the moment and needs to be organized.

## 2.6 Archive Sect. Research Management (RM)

The group of records which deal with research management are organized into eight Archives as given in Table 4.

Table 4. Subsections of the Archive, Research Management.

<i>Archive set.</i>	<i>Archives of Research Management</i>	<i>Records organized</i>	<i>Additions required</i>
15	Review bodies (RC, IRG)	1999-2011	2012
16	Project lists (at various time points)	2001-2010	2011-2012
17	Project Records	1992-2012	
18	Research management Docs (Incl. Extension of tenure of projects)	1998-2012	
18	Academic programmes (Ph. D., M. Sc.)		
20	Training programmes*		
21	Extension activities*		
22	Future programmes	2004-2011	2012

\* Subsections to be organized fresh

**Archive 15. Review Bodies:** The Archive contains records relating to Research Council (RC). Agenda of various RC meetings, copies of the minutes of the meetings, address of RC members, and other records are to be found here.

**Archiv 16. Project Lists:** The Archive contains lists of projects compiled at various points of time and prepared for various requirements.

**Archiv 17. Project Records:** This is the largest Archive in VOK, and will be utilized the most. Almost all the documents relevant to the projects are meticulously posted to the Archive on a day-to-day basis. Records pertaining to older projects are but few, particularly those prior to Research projects numbering lower than 300.

**Archiv 18. Research Management Documents:** In addition to documents pertaining to individual projects, many project management documents such as the administrative and financial (*Incl. Extension of tenure of projects*):

**Archive 19. Academic Programmes:** The academic programmes include communications and other relevant documents on doctoral programmes and dissertation work of M. Sc. students from various colleges. The archive on this subsection, once organized, would be quite useful for the Coordinator of Academic programmes.

**Archive 20. Training Programmes:** This subsection would be useful for providing the periodic reports on the training imparted by KFRI.

**Archive 21. Extension Activities:** This section will also serve the purpose of periodic reporting of various activities carried out from time to time.

**Archive 22. Future Programmes:** At any given point of time, the institution will have a planning for future. This includes research fronts identified, science policy documents, results of discussions with scientists, results emerging from project management cycles, long-term priorities, 5-year plans, proposals on long term plans submitted to funding agencies such as Centre of Excellence, and the like. This Archive would be useful, particularly when the older generation of staff is replaced by fresh postings.

## 2.7 Archive Sect. Primary Data (Prim-data)

**Purpose of the Archive Sect. Primary Data:** The purpose of the Section is to hold primary data originating from various research and extension projects which are of future value. Based on the variability of the primary data four Archives have been conceived, as given in Table 6.

Table 5. Subsections of the archive, Databank.

<i>Archive sect.</i>	<i>Archives of Primary Data</i>	<i>Records organized</i>	<i>Additions required</i>
23	Image bank	1999-2011	2012
24	Map bank	2001-2010	2011-2012
25	Primary data (From projects)	1992-2012	
26	Power Points (Presentations)	1998-2012	

**Archive 23. Image Bank:** Hundreds of thousands of photographs have been taken by scientists, the Artist-Photographer and the project staff of the institute, using mechanical and electronic cameras. Most of these photographs are of scientific value and future use value. A good amount of these have been lost forever, as there was no mechanism for capturing the same from retiring scientists. This resource can however be built-up for the common use of the scientific community of the Institute.

At the moment, the archive comprises a few hundred of images acquired by K Swarupanandan from his own projects and some gathered for the purpose for bringing out the newsletter, Evergreen, and the KFRI Annual Reports.

Naming individual image files is time consuming and therefore breaking the image bank into many smaller folders identifiable by narrow subject areas such as mangroves, sholas, forest fire, palms, Lepidoptera, bamboos, etc., are to be organized. It is however, customary to show the source of the images on the folders.

Provision to input images into the Image bank has been provided in the package.

**Archive 24. Map Bank:** Several hundreds of maps have been generated by the scientists depicting distribution of organisms, geo-spatial features of forests and forest physiognomy, or other dynamic aspects of forestry. Such maps can also be put to better use, if organized for future use.

Maps of Forest Divisions, Range maps, Beat maps, Maps of Elephant and Tiger conservatories, Maps of Sanctuaries, National Parks, Biosphere Reserves, etc. can form part of this valuable archive. This Archive is yet to be organized. Once organized, it can even be uploaded into the web for the use of forest officials, academicians, researchers, students and the public.

**Archive 25. Primary Data (From projects):** Most research and extension projects are short term with 2-3 year duration. Large body of primary data, either as field observations or as experimental results, is produced in each project. Such data sets though of uncertain future value have relevance particularly when long-term phenomena and long-term trends are to be analyzed. Such datasets also become meaningful, when unanticipated phenomena such as climate change and global warming make their appearance. Many reputed universities and research organizations have repositories where such datasets are preserved.

When the first and second generation scientific personnel have left KFRI leaving no such repository of primary data source, in the long-term interest of the Institute, it is time to think of such a repository. One problem in organizing such a repository was the lack of a convenient mechanism by which the contents of the archive could be notified to the users. As with the image bank, breaking the primary databank into many smaller folders identifiable by narrow subject names would be sufficient enough to tackle the problem.

**Archive 26. Power Point Presentations):** Apart from research, it also has the mandate of imparting exposure on ecology and environment to the public and various stakeholders. In doing this, staff of the institute has to make many presentations, often the same presentation(s) in various forums and for various sections of the society. Repetitive use of same presentation(s) is involved in many instances: celebrations of world environment day, *vanamahotsav*, awareness campaigns, conduct of open days, etc.

Organizing a stock of different PowerPoint presentations would simplify the trouble in arranging the speeches at short notice. Many presentations derived from projects also contain the latest developments in the concerned subjects. Such presentations would put the speaker(s) to be comfortable in delivering the speeches. Even if a handful of scientists contribute to the archive, it would be substantial.

The Presentations have to have the subject keywords and source indications in the file names, so as to make the search comfortable.

## 2.8 Archive Sect. Utilities

This section comprises of four subsections: a. Forms & Formats, 2. KFRI Calendar, 3. Staff Profiles, and 4. Other Utilities. All are word files and can be downloaded and used for various purposes.

<i>Archive sections</i>	<i>Archives of Utilities</i>	<i>Records organized</i>	<i>Additions required</i>
27	Forms and Formats		
28	KFRI Calendar		
29	General Utilities		
30	Miscellaneous		

**Archive 27. Forms & Formats:** Some of the Forms and Formats prescribed by the office have been included in this archive, for the use of all the staff. The ones currently available in the location are:

- Computer repair – Request format
- Equipment purchase – Request format (for equipments of <Rs.10,000)
- Extension of tenure of projects – Request for
- Fieldwork in forest areas – Request format
- Jeep – Request format
- New Project Number – Format for communicating new number
- Project proposal – Format
- TA Bill - Format
- Toner for Printer/Photocopier – Request format

Many more forms need to be digitalized and provided here. Some of the relevant ones are:

- Casual leave
- Leave with salary
- Half pay leave
- Medical Reimbursement
- Tour diary

This will be done eventually.



**Archive 28. KFRI Calendar:** Every institution will have a number of recurring activities that repeat each year and KFRI is no exception to this. Typical examples of such activities are:

- Budget preparation
- Preparation of Annual Report
- Management Committee Meetings
- Research Council Meetings
- IRG Meetings
- Meeting of Divisional Charges
- Divisional meetings
- Budget preparation
- Preparation of Monthly Balance Sheets
- Preparation of Monthly Progress Reports
- KFRI Open day
- Environment day
- Distribution of Commemorative awards
- Monthly seminars
- Annual day celebrations
- Preparation of Monthly Balance Sheets

A stock listing of repetitive activities and their tentative dates in the year to come will be of much use both to the staff as well as the administration for planning activities in advance and prepare for that. As part of the planning process, such a calendar is needed for each institution and KFRI also needs one.

**Archive 29. General Utilities:** This is a section devoted for providing sharable common utility information such as phone numbers and e-mail IDs of staff, etc. The latest information has to be compiled now. It also has to be regularly up-dated either by individuals or a person who is given the responsibility of periodic updation. This section is also blank at the moment.

## **2.9 Archive Sect. VOK-Help**

**Archive 30. VOK-Help:** This section contains the help files of VOK. There are two help files: (1) Help-Tips, and (2) A copy of this Research Report. As the application undergoes modification, both the help files will have to be replaced with most recent ones.

## Chapter 3. The User Tools

### 3.1 User Tool: Inputs

**The Inputs button:** The Inputs button, , contains six input options. They are:

- |  |                          |                                   |
|--|--------------------------|-----------------------------------|
| <input type="button" value="Event Input"/>             | <input type="checkbox"/> | For Event recording               |
| <input type="button" value="Activity Record"/>         | <input type="checkbox"/> | For Activity reporting            |
| <input type="button" value="Monthly Progress Report"/> | <input type="checkbox"/> | For Monthly Progress Report (MPR) |
| <input type="button" value="Annual Report"/>           | <input type="checkbox"/> | For Annual Report                 |
| <input type="button" value="RC Meeting"/>              | <input type="checkbox"/> | For Research Council (RC) meeting |
| <input type="button" value="IRG Meeting"/>             | <input type="checkbox"/> | For IRG meeting                   |

**The Event Input Button:** The  button provides facilities for on-line reporting/registration of various events organized by the institute. This facility also stores the data in a database for future use. It also auto-announces the immediately forthcoming events in the display box of the homepage which does the role of an on-line ‘Notice Board’.

Clicking on the  button will lead to the Event Input Page. This page has two sections: (a) Listing of ‘Registered Events’ (upper half of the page), and (b) ‘Event Registration’ Window (lower half of the page). The listing of already registered events is provided in order to avoid replications; the list can be scrolled through. A  button enables deletion of erroneous records; however, remember that deletion will work only for the person who has input the event.

The *Event Registration Window* contains input boxes for various attributes of the to-be-registered events. The dates of the events can be entered manually or selected from the calendar that appears once the cursor touches the input box. The ‘hour’, ‘minute’ and ‘am/pm’ boxes can also be filled in using the respective combo boxes. The  button allows to re-enter the attributes again. The input data gets registered in the database only when the  button is pressed.

**The Activity Record Button:** The  button is the link to a register containing all kinds of activities performed by individual staff. Each individual staff (scientists/other staff) can input the data and extract the information pertaining to the individual. In short, this will do the functions of an electronic diary, but the difference is that it will allow filtering or ordering the data in desired formats. Right now the ‘Register’ is empty, but has to be organized.


**Monthly Progress Report (MPR) Button:** Since MPR is to be provided every month, a separate button has been provided for this utility on the homepage itself. For details, please see Sect. 3.5.

**Annual Report Button:** Provides the facilities for on-line submission of materials for the preparation of the KFRI Annual Report. This application is yet to be programmed.

**Research Council (RC) meeting Button:** Provides the facilities for on-line submission of materials for the forth-coming RC Meeting. This application is yet to be programmed.

**IRG meeting Button:** Provides the facilities for on-line submission of materials for the forthcoming IRG meeting.

### 3.2 User Tool: Thapal



Thapal, , is an e-Postal Section, an integral component of an automated office. This is available only on the KFRI-LAN and not available on the worldwide web.

Thapal simply performs the functions of an e-mail facility. Nevertheless, a separate button for Thapal is provided, as all official communications will follow this pathway.



The procedure for communicating with the office is given below:

- Click the  button on Homepage – This will take the user to the Thapal-Page.


Thapal-Page contains the following buttons:



Inbox button	<input type="checkbox"/>	
Sent-mail button	<input type="checkbox"/>	
Choose file button	<input type="checkbox"/>	<input type="button" value="Choose File"/>
Send button	<input type="checkbox"/>	<input type="button" value="Send"/>

There are also input boxes for ‘From’, ‘To’, ‘Subject’, and for typing the communication. The ‘From’ and ‘To’ are automatically generated by the software.

- Now, type the subject of the communication in the respective input box.
- Type the communication in the space provided.
- To attach files, use the  button, as in common e-mail packages (Gmail, Hotmail, Outlook Express).
- The  button sends the message.
- The buttons Inbox () and Sentmail (), can be used for viewing the received and sent mails.


### 3.3 User Tool: KFRI-Mail (Mail)

The KFRI-Mail is a LAN-based e-mail system; it works exactly as any commercial e-mail package. It has all the properties of the *Thapal*; in fact *Thapal* is only a specific utility of the KFRI-Mail. The function is activated through the  button.

There is only slight difference in the KFRI-Thapal  and KFRI-Mail . KFRI-Mail can be used for sending communication to several individuals simultaneously, whereas in KFRI-Thapal, mail transfer is orthogonal, ie, the mail can be sent to only one individual at a time; this has been kept so, as decision making is involved at each point of the hierarchy.

In the KFRI-Thapal, list of mail IDs of all KFRI staff are provided on a vertical display box. This enables the user to select the desired mail recipient(s). Rest of the procedures is the same as for the KFRI-Thapal.

### 3.4 User Tool: My Profile

The ‘My Profile’ facility, the  button on the Homepage, provides quick access to different information on individual staff of the institute. The information is sourced through various means, as given below.

• Personal details	<input type="checkbox"/>	From Office Records
• Educational Qualifications	<input type="checkbox"/>	From Office Records
• Specializations	<input type="checkbox"/>	From the individual
• R&D Projects	<input type="checkbox"/>	From the RME database (auto-generated)
• Publications	<input type="checkbox"/>	From the Library, also supplemented by the individual

This profile is provided basically to assist the individual; the Administration of the Institute can also use the information for a variety of purposes. The individuals can see only his/her profile, whereas the administrators, Registrar and Director, can see all the profiles. It aims at making available the information instantaneously, about the specializations/expertise of the scientists, their current responsibilities, workload, capability for shouldering a particular responsibility, to decide who will be suitable for attending a certain task, and so on. At the moment, the section remains incomplete. Many relevant information needs to be assembled.

### 3.5 User Tool: Monthly Progress Report (MPR)

**Monthly Progress Report (MPR) Button:** The button  takes the user to MPR-Page enabling scientists to report Monthly Progress in R&D Projects on-line.

As the MPR is to be forwarded to the Council in the first week of each month, the MPR-Page will be active only during the first 5 days (1-5) of each month.

The MPR-Page contains two facilities: (a) For reporting Progress of on-going projects, and (b) For reporting Information on publications and other activities.


**For reporting progress of on-going projects, follow the steps given below:**

- Place the cursor on the combo-box and click – This will select the project-type
- Acronyms of various project-types will pop-down from the combo-box
- The acronyms and their expansions are given below
  - AP  Attachment Programmes
  - CP  Consultancy Projects
  - EP  Extension Projects
  - ESP  Emeritus Scientist Programmes
  - RP  Research Projects
- Select any one of the acronyms – This will display the titles of all on-going projects of the scientist belonging to the selected project-type in a database in a box  the Project-display-box. It also prompts a check box against each title.
- Select the desired titles using the check-boxes. This will do three things:
  - The check-boxes will turn tick marked () automatically.
  - A Database-Display appears below the Project-Display, where the project number(s) and title(s) appear.
  - This database contains blank columns for recording ‘Target’, ‘Achievements’ and ‘Remarks’.
  - Now, complete the blank columns with appropriate details.

**For reporting information on publications and other activities, follow the steps given below:**

- Click the button   This will lead to a Publication/ Activity Input Page
- Click on the input box – This action pops-down the various kinds of publications.
- Select any one of the items – This will provide further input boxes to provide relevant information.
- Next, press  button  This action initiates three things:
- Closes the session and stores the data in the database.
- Displays cleared input boxes for a fresh entry
- Displays the entries already made as an un-editable database, beneath the input boxes.
- If by chance you want to delete the entries, use  button  This will delete all entries of the Publications and will take you back to the previous page.
- Click  button to view the entries made.
- To print the MPR, click  button  This leads to the print-dialogue-box.
- One can also export the MPR to Word, using  button.


### 3.6 User tool: Safestore

**The Safestore Button:** The Safestore Button, , offers access to protected storage space in the server for individual scientists and other staff. Users can store their very important documents in this area; for example, a nearly completed final technical report, an MS submitted for publication, awaiting Reviewer's comments, etc. The advantage is that, even if the individual's computer goes out of order, the document(s) can be downloaded from the server.

The storage space allocated for an individual, however, has been limited to 1GB; this is because of the present space limitations of the server. Access to the Safe-store area is enabled through passwords. The password protection will allow the user to see the files stored by him/ her self only; in other words, no one else can see your files. Provision to upload, download and delete the files has been given.

#### *Procedures for using Safestore facility*

##### *Procedures to upload file(s) to the Safestore space:*

- Click on the Safe-store Button  (on the Homepage) – This will take the user to the Safe-store Page.
- Click on  button – This takes the user to the file browser.
- Select a file from the file browser.
- Click
- Click  - This will display the filename in the display-box.

##### *Procedures for download/delete file(s) from the Safe-storage area:*

- On the Safe-store Page, select the filename from the display-box.
- Click on  button – The file will be automatically downloaded to the default folder [Downloads].
- The file can be renamed or copied to another folder.
- To delete a file from the 'Safe-storage' area, select the filename in the display-box and click on  button.

### 3.7 User tool: Projbase (Database of projects)

**Need for the project database:** In many instances, the institution requires lists of research, extension and other types of projects, either for reporting to higher bodies such as Management Committee, Research Council, KSCSTE, Planning Board, etc. and a host of other reporting purposes. Such lists are also needed for annual budget planning, 5-year planning and research monitoring. So the available database of projects in Word and Excel spreadsheet have been combined and transformed into a SQL-database. The database contains various particulars of the projects, as given below (Table 6).


Table 6. Various attributes of R&D projects.

<i>Parameter(s)</i>	<i>Type of data</i>
Project number	– Number
Project type	– AP, CP, EP, ESP, RP
Principal investigator	– Name of Scientist(s)
Associate Investigators	– Name of Scientist(s)
Project title	– Title
Starting date	– Month & Year
Ending date	– Month & Year
Tenure extension	– Month & Year
Funding agency	– DBT, KFD, etc; mostly abbreviations
Budget	– Amount (Rs) or other currencies
Status details	– On-going, Closed, Abandoned, Not initiated
Project proposal number	– Number prefixed by ‘PP’
Report number	– Number
Reference of the funding agency	– File number and date
Contact details of the funding agency	– Name of contact person, Postal address, Phone number(s), Fax number, e-mail ID, etc.

The above information is required at various managerial levels: (i) Director’s office, (ii) Registrar’s office, (iii) Programme Coordinators’ office, (iv) Scientists-in-charge’s office, etc. The information is also required in a variety of contexts: (a) During preparation of annual report, (b) For the Newsletter, *Evergreen*, (c) For project review, (d) In following up financial matters with funding agencies, (e) In placing orders for purchase of equipments, (f) For notifying vacancies of staff positions, etc.

In the contemporary world, often we need the information on finger tips. The situation is much more demanding, when the number of research projects is many, when the information is required in many focal points, and when the spheres of activities are many. The project database precisely does this.

### *Procedures for extraction of information from the project database*

Click  button – This will take the user to the Project Database Page.

There are several options for filtering and generating the required information. The options are based on the following parameters; these are displayed on two display-boxes. The parameters up on which filtering the information is possible are given below.

- Project type
- Project number
- Principal Investigator
- Associate Investigator
- Funding Agency
- Categories of funding agency
- Time frame

To view all records of all projects of a given parameter:


- A Project type – Click the project type from the combo-box.
- A Scientist – Select the name of the scientist from the combo -box.
- A time frame – Provide timeframe against the parameter in the space provided.

Various combinations of the above parameters can also be utilized for getting the required information. Various combination filters can be designed using the click buttons placed against each parameter or their respective combo boxes. The filter generation will be complete only by clicking on the Submit Button. A few examples of application of filters for extracting information are given below.

To view all records of all projects pertaining to a combination of two parameters:

- Project type & Time frame – Select the project type from the combo-box, then Input the timeframe in the relevant space
- Scientist & Project type – Select the project type from the combo-box, then Select the Scientist's name from the combo-box
- Funding agency & Scientist – Select the Scientist's name from combo-box, then Select the Funding agency from the combo-box

Combination of any number of parameters given in the display-boxes is also possible.



View button  and buttons for exporting the result generated to Word and Excel are also provided.





### 3.8 User tool: Events

**Events:** The Events function has two components; the first one is a desktop e-notice-board which alerts the staff with lists of current and forthcoming events. The advantage of the application is that the alert is personalized.



#### ***Procedures for accessing the current events***

- Current events display is automatic, in the display-box of the VOK-Homepage.
- By default, the events of 'Today' are displayed in the Display-box.
- To see the programmes of Yesterday, Click on  button.
- To see the programmes of Tomorrow, Click on  button.

#### ***Procedures for accessing the Forthcoming and Past Events:***


- Click the Events  button – This takes the user to the *Events Database*.
- Provide inputs for the 'time frame' in the *From* and *To* display-boxes – This will
- will create the time frame filter.
- Click  button – This will export the Events list for the specified timeframe to a word output file with the filename '*Events*'.
- The file can be viewed, edited or printed.

#### ***Procedures for Registering 'Events':***

- Click on the  button on the Homepage – This takes the user to the Inputs-Page.
- Click on  button – This takes the user to the Inputs-Page.
- For further details on providing inputs, please refer to Chapter 8. Inputs

### 3.9 User tool: Hyper Links (Links)

**Hyperlink to G-Mail:** Clicking on  button will take directly to the G-Mail and its utilities.

**Hyperlink to KFRI-Website:** Clicking on  button will take to the KFRI Website. The KFRI website was composed with the involvement of many staff in various stages of its development: Mr. AR Rajan, Dr. KV Bhat, Dr. P Vijayakumaran Nair, Dr. M Amruth, and others and is constantly being updated. The site contains useful information on KFRI, Staff, Research initiatives, Publications, Facilities, Teaknet, APFISN and the KSCSTE. We have provided a link to the site in order to enable to navigate from the VOK itself. Homepage of the KFRI-Website is pictorised below (Fig. 5).

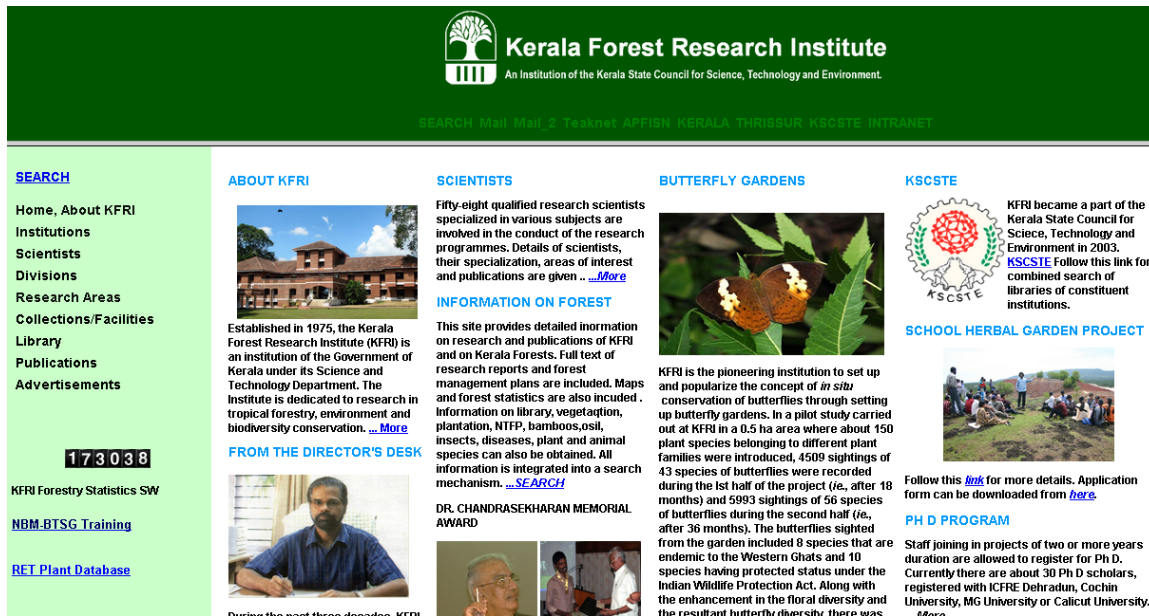



Fig. 5. Homepage of KFRI Website.

**Hyperlink to the KFRI-Library Portal:** The Library Portal is the digital library on forestry and allied environmental subjects organized and continuously enriched by scientists of the KFRI Library. It is highly resourceful and useful for the researchers.

The portal is not part of the VOK; however, considering its use-value, a link to the portal  has been provided in the VOK, so that, scientists can navigate across the many utilities by remaining in the VOK background.

For the users' information, the Library portal contains three categories of records: Catalogues, Full-text archives and Bibliographic compilations. The contents of each of the categories are given below, in Table 3.

Table 7. Subsections of the Library Portal.

<i>Catalogues</i>	<i>Bibliographies</i>	<i>Full Text Archives</i>
<ul style="list-style-type: none"> <li>• Books, Articles, Reprints</li> <li>• KFRI Ph. D. Theses</li> <li>• Books published by KFRI</li> </ul>	<ul style="list-style-type: none"> <li>• Bamboo</li> <li>• Rattan</li> <li>• Teak</li> </ul>	<ul style="list-style-type: none"> <li>• e-Books</li> <li>• e-Prints</li> <li>• Indian Forest Records</li> <li>• Indian Forester</li> <li>• JBNHS</li> <li>• Kerala Forest &amp; Environment</li> <li>• KFRI Brochures</li> <li>• KFRI Extension Reports</li> <li>• KFRI Information Bulletins</li> <li>• KFRI Newsletter (Evergreen)</li> <li>• KFRI Research Reports</li> <li>• KFRI Scientific Papers</li> <li>• Paper Clippings</li> <li>• Rattan</li> </ul>

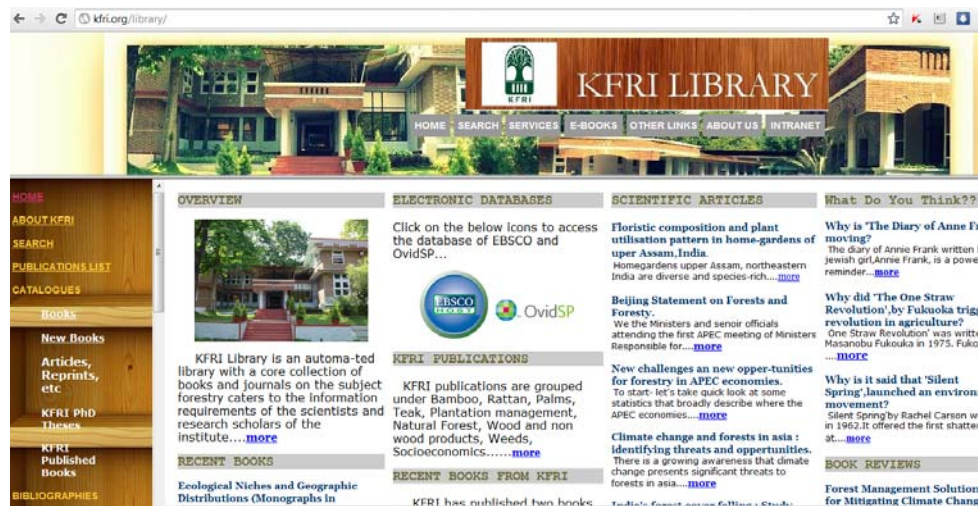


Fig. 6. Homepage of KFRI Library Portal

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