

Digital Archival of Rattan Information

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Abstract

Rattans are one of the main non-wood forest produces that provide livelihood for millions of tribal and rural populations in the world. There are 13 genera of rattans comprising about 568 species. During the last three decades a number of studies have been conducted in different aspects of rattan. These studies have been published in various forms such as books, research reports, reprints, conference proceedings etc. Many of the international organizations like IDRC, INBAR and UNDP have supported cane research programmes. It has become necessary to bring together bibliographic details of widely distributed literature for documentation. In this situation digital archival of rattan is necessary for providing information on various aspects of cane to researchers, foresters, students

Keywords: Digitisation, Rattan archives, Rattan information

1 Introduction

Rattans or canes, the climbing palms of the family *Areaceae* form one of the most useful forest resources, utilized for the manufacture of a wide variety of aesthetic furniture and articles of decoration (Chand Basha & Bhat, 1992) They provide gainful employment to many people in rural and remote areas, particularly among the tribal people. In India, there are about 61 species of rattans under four genera, *Calamus*, *Daemonorops*, *Korthalisa* and *Plectocomia* (Rao & Vongkalung 1987). Although economically important, rattan remained as a neglected natural resource till recent times. With the rampant destruction of forests and habitats and unsustainable extraction, its stock at present is highly depleted. The exploitation of wild rattans is increasing with the increase in demand for rattan furniture. Consequently, this resource is over exploited and has become short in supply. Rattans are one of the

important non-wood forest produce of many tropical countries. There are 13 genera of rattans comprising about 568 species (Renuka, C et al., 2010). The largest number of genera and species of rattans are found in South East Asia. Among the 13 genera, *Calamus* is the largest genus with about 370 species (Tewari, 1992). During the last three decades a number of studies have been conducted in different aspects of rattan. These studies have been published in various forms such as books, research reports, reprints, conference proceedings etc. Many of the international organizations like IDRC, INBAR and UNDP have supported cane research programmes. It has become necessary to bring together bibliographic details of widely distributed literature for documentation. In this situation digital archival of rattan is necessary for providing information on various aspects of cane to researchers, foresters, students. It also helps for bibliometric study to understand growth of literature in time and on specific topics.

2 Objectives

- To digitise articles on rattans
- To prepare a database and a searchable CD
- To make a digital collection of rattan articles with full text for in-house use

3 Materials & Methods

3.1 CDS/ISIS and WINISIS

CDS/ISIS is a software package for generalised *Information Storage and Retrieval Systems* developed, maintained and disseminated by UNESCO. It was first released in 1985. CDS/ISIS is an acronym which stands for Computerised Documentation Service/ Integrated Set of Information Systems. CDS/ISIS is a menu-driven generalized information storage and retrieval system designed specifically for the computerized management of structured non-numerical databases. One of the major advantage of CDS/ISIS is that it is able to manipulate an unlimited number of databases each of which may consist of completely different data.

It is also possible to handle variable length records, fields, sub fields and repeatable fields, thus saving disk space and making it possible to store greater amounts of information. CDS ISIS has been modified to suit MS Windows, known as WINISIS. The development of the Windows version was the result of strategic development policy decision aiming at maintaining the leading role CDS/ISIS has played and is still playing on the international scene. WINISIS is used for creating the database. The database created using CDS/ISIS serves as the master database. A text file is generated from the database to serve as list for searching.

Database is prepared collecting literature on rattan from books, research reports, scientific papers, and conference proceedings, CD's like CABI, AGRIS, and Biological Abstract etc with abstract. Records in database are grouped like botany, distribution and resource diversity, reproductive biology, natural regeneration, silviculture, injuries and protection, properties, harvesting and grading, processing, preservation & utilization and trade and industry. Botany is again classified into

morphology, anatomy, physiology, genetics and taxonomy. Silviculture is again divided into general, seed collection & storage, seed germination, nursery techniques, propagation, tissue culture, cultivation, plantations, growth, yield, fertilization etc.

Database can be searched by author, title, keywords etc. Full text articles downloaded from internet and pdf files are prepared by scanning articles from conference proceedings, journals etc. A digital collection of documents on rattan with full text of articles make available for in-house use

Each rattan article scanned using a scanner and saved as PDF. The reports were saved in PDF format. A web based mechanism used for searching and retrieving documents. This has the added advantage that the documents can be published in internet at a later time. A local server mechanism provided by free software Server2go was used for the CD implementation. This acted as a virtual server. The search engine was a php program, which reads list of documents, checks for existence of keywords and lists matching records.

4. Purpose of Digitization

There are number of reasons for considering digitisation as an alternative to traditional library activities. The term digital library in a broad sense is a computerized system that allows obtaining a coherent means of access to an organized, electronically stored repository of information and data. With the information explosion, libraries are facing space and monetary constraints. Every document published is to be acquired and stored under one roof and so evolve the concept of resource sharing and network. Automation has helped libraries in improving library activities and has accelerated their working. It saves the effort, time and manpower of libraries. In an automated system the information can be altered and updated without the repetitive work involved in the manual system. With the development of computer, any information can be turned into sequences. So, any user can access into the sequence without any trouble and delay. It saves the time of the users and staff and increases overall productivity and reliability.

5. Results and Discussion

The Database of rattans of world prepared with digital collection of documents with full text. Database can be searched by author, title, keywords etc. Database can be launched in website of KFRI (Kerala Forest Research Institute) and KSCSTE (Kerala State Council for Science and Technology) with a link to full text for in-house use. Database and full text of articles on rattans will be very useful to researchers, forest officials, teachers and students of forestry and all those who are associated with forests and forestry. CD is also prepared. Long term preservation of documents are more easy. Database supports resource sharing among libraries. It also increases portability of rattan documents.

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