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editor@iajavs.com
iajavs.editor@gmail.com



The National Agricultural Research System e-Journal Consortium, or CeRA

H. Chandrasekharan*, Sarita Patle, P. S. Pandey, A. K. Mishra,

ABSTRACT:

Consortium for e-Resources in Agriculture (CeRA) is an e-Consortium of Agricultural Libraries under the Indian Council of Agricultural Research for National Agricultural Research System (NARS) libraries. This article describes the background, main features, advantages and use of e-journals (subscribed by CeRA) by the users of NARS institutes/universities. Besides covering the use of e-journals, the article also examines the utilization and satisfaction levels of users accessing e-journals. Lastly, some cost avoidance analysis and research productivity analysis are also highlighted.

Keywords: Cost avoidance, CeRA, e-journals, library consortia.

INTRODUCTION:

CeRA, the Consortium for e-Resources in Agriculture, was founded to increase researchers' access to specific agricultural and allied science publications. CeRA is part of the larger National Agricultural Research System (NARS). Over a decade ago, the National Agricultural Technology Programme (NATP) laid the groundwork for this project by bringing internet access to the majority of the Indian Council of Agricultural Research (ICAR) institutions. The ultimate goal was to increase access to information, particularly online journals, which are vital to high-quality research. Libraries at ICAR centers and State Agricultural Colleges (SAUs) have been cutting down on journal subscriptions due to budget cuts in recent years. Furthermore, many librarians have been reduced in number due to the rising expense of foreign journals. Maintaining a position at the vanguard of global knowledge production requires access to journals. CeRA was established in 2008 as part of the National

Agriculture Innovation Project (NAIP) to facilitate online access to research publications from certain publishers, since no institute/SAU library could afford to subscribe to all journals. Importance of e-publishing for library consortia The advent of e-publishing has brought a revolution in journal publication, subscription, access and delivery mechanisms. Electronic versions of published works have several benefits over their print counterparts, such as greater accessibility, more potential for public dissemination, greater visibility in the digital world, the possibility to integrate hyperlinks to related texts and multimedia, etc. The term "consortium" refers to a group of organizations working together for the greater good. The primary goal of a consortium is to accomplish collectively for little more money than any one member could do on their own. A library consortium is a group of libraries working together to share materials and services for the sake of its constituents

Amit Pandey, Usha Khemchandani and Rajkumari Kasrija



Articles from publishers like Springer, Wiley-Blackwell, and Elsevier may now be found online before they are released in print. CeRA's many capabilities, such as Simple Search, Advance Search, etc., are made available by the consortium. Alerting services like 'My Journals'

Search functionality, alert services, in-article links, forward links (for referencing articles), and other value-added features are also provided.

The publishing process is sped up.

- Damage, theft, or misplacement of items is impossible.

s across consortia.

There are several ways in which users of consortia might profit from e-Publishing. To name a few:

- It does not depend on location or time. Customers' time is not wasted.

There are advantages to e-publishing for libraries as well:

Advantageous supply of resources.

Cost savings in storage space, labor for binding, cleaning, clambering, etc.

Money saved. **Table 1.** Major ongoing library consortia

Name	Members	URL	Resources	Publishers
UGC INFONET 2.0 (INFLIBNET) ^{2,3}	182	http://www.inflibnet.ac.in/infonet/	5500	25
CeRA	134	http://www.cera.jccc.in	3000	7
ERMED ⁴	98	http://www.nmlermed.in	1812	10
INDEST-AICTE ⁵	82	http://panit.iitd.ac.in/indest/	6500	17
NKRC (CSIR-DST) ⁶	68	http://ejournal.niscair.res.in/index.php	4500	23
DeLCON DBT e-Library Consortium ⁷	33	http://delcon.gov.in	917	19
FORSA ⁸	11	http://www.ncra.tifr.res.in/library/forsaweb/index.htm	25	10

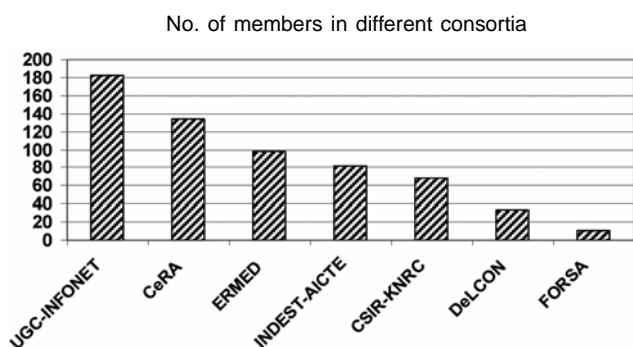


Figure 1. Member strength of the major emerging consortia in India.

Table 2. Electronic resources avail-able through the CeRA consortium

Publisher	No. of journals
Annual Review	22
CSIRO	8
Elsevier	358
Indian journals	131
Springer	70
Taylor & Francis	1079
Total	1668



- Improved services.
- Public relation opportunities.
- Greater visibility of products.

e-Publishing and consortium approach not only saves money, but also make articles lively by providing several features like animation, virtual reality and interactive mathematical charts.

Library consortia in Indian scenario

In India, the Forum for Research Sharing in Astronomy and Astrophysics (FORSA), one of the oldest library consortia in the country for physics was established in 1982. The history of library consortia for on-line subscription and on-line access in the country was initiated about two decades ago, with the establishment of the Information and Library Network (INFLIBNET) Centre¹. This is a national body established by the University Grants Commission (UGC) of India in 1991. Thereafter, various subject-oriented consortia were established to improve the quality and status of research and development, namely CSIR-DST e-journals consortia for scientific information for CSIR and DST laboratories (also called as National Knowledge Resource Consortium), Indian National Digital Library in Engineering, Science and Technology (INDEST) for engineering and technology-related institutions, Electronic Resources in Medicine (ERMED) Consortium for Medical colleges/institutions, and DBT e-Library Consortium (DeLCON), etc. which are doing well in their respective subject areas. CeRA is among the latest consortium catering to agricultural research and education. Some of the popular Indian initiatives for sharing library resources (especially online journals) are summarized in Table 1.

Among the academic consortia, UGC-Infonet is the largest, with plans to reach out to more than 180 universities and colleges. CeRA is the second largest consortium, next to the UGC-Infonet (Figure 1).

CeRA e-journal consortium

CeRA is an ambitious programme initiated by ICAR in a sub-project of NAIP, funded by World Bank. It covers about 3000 scholarly journals (comprising consortium-subscribed, Library-subscribed and open

access journals) from seven major publishers and catering to 134 institutions under NARS. The number of e-journals and name of the publishers are listed in Table 2.

Since ICAR has network connectivity across institutions and SAUs, select journals have been made available over the network for use of the scientific community. The network of institutions having on-line accessibility of journals in CeRA is large and covers all institutes under NARS (Figure 2).

Organizational structure of CeRA

Activities in CeRA are governed by Steering, Monitoring and Negotiation, and Working Committees and well sup-

ported by the Project Implementation Unit, NAIP. The organizational structure of CeRA is shown in Figure 3. The CeRA headquarters acts as an interface between all researchers in member institutes towards implementation of objectives of the consortium. Briefly, CeRA aims to develop the existing R&D information resource base of ICAR institutes/universities, etc. comparable to leading institutes/organizations in the world, to subscribe e-journals and create e-access culture among scientists/teachers under the ICAR institutes/agricultural universities, and to study the impact of the consortium on the level of research publications measured through *Science Citation Index (SCI)* and NAAS Ratings. CeRA members have access to on-line journals through IP authentication, which provides a fool-proof system of security and also avoids memorizing user ID, password, publishers' URLs, etc.

Main features of CeRA

- Document delivery request (DDR) service has been developed at all of the CeRA member institutes to enable all consortium partners who do not have the print version of particular scientific articles. The DDR system includes library subscribed journals which are not subscribed by CeRA.

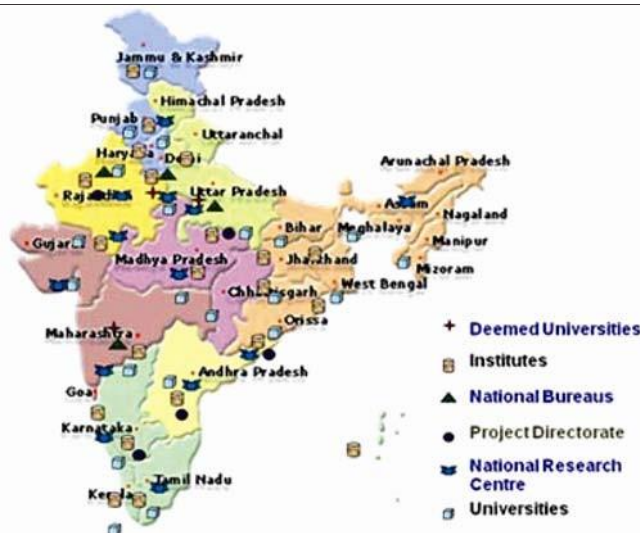


Figure 2. Map showing CeRA member institutes in NARS.

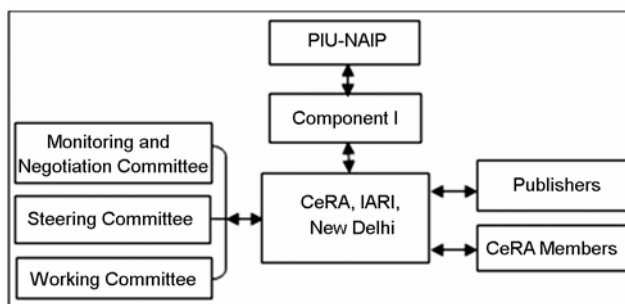


Figure 3. Organizational structure of CeRA. Thomson *Web of Science* for *SCI* has been made available to the lead institute (IARI).

- Training-cum-workshop awareness programmes for

the CeRA users and librarians are also conducted on regular basis.

Impact of CeRA consortium

The most important factor for a successful consortium is its usage and impact on R&D activities in the system and CeRA is no exception. During the past three and a half years, activities in CeRA have been updated and monitored on the basis of feedback received from its members and experts. The impact assessment (IA) of CeRA has been measured through the following:

- Evaluating pattern of the number of downloads of research articles.
- Evaluating the progress of the DDR service.
- Evaluating the quality of publications by researchers in NARS.
- Evaluating the usage and recovery of cost incurred on the subscription of e-journals.

Evaluation of usage data

Data on the download of full-text articles reflect the awareness of CeRA among researchers in NARS and provide valuable information on their usage of journals. It can be used to improve effectiveness of the system and to identify areas of importance. The quarterly usage of full-text downloads in CeRA by member institutes for the period from January 2008 to March 2011 indicates a substantial increase (Figure 4). This increasing pattern shows the interest and usefulness of this e-journals consortium for the end-user. Figure 4 also reveals that during the first year, the usage of CeRA was low but as more workshops were conducted, the usage increased exponentially from July 2009.

Other than the whole consortium, the download graph for the individual publishers is also shown in Figures 5 and 6. Figure 5 shows the average number of downloads of articles by all CeRA members per month from different publishers. Figure 6 shows that more than half (66%) of the downloaded articles are from Elsevier, whereas for the rest of the (34%) is from the other four publishers. In the CeRA consortium articles were downloaded from two major publishers, Elsevier and Springer.

The member institutes of CeRA are divided into five categories, namely, Deemed Universities (DUs), ICAR

Headquarters (ICAR-HQs), National Bureaus (NBs), National Research Centres (NRCs), Project Directorates (PDs) and SAUs, according to their similarity of objectives and works. A comparison of download data among

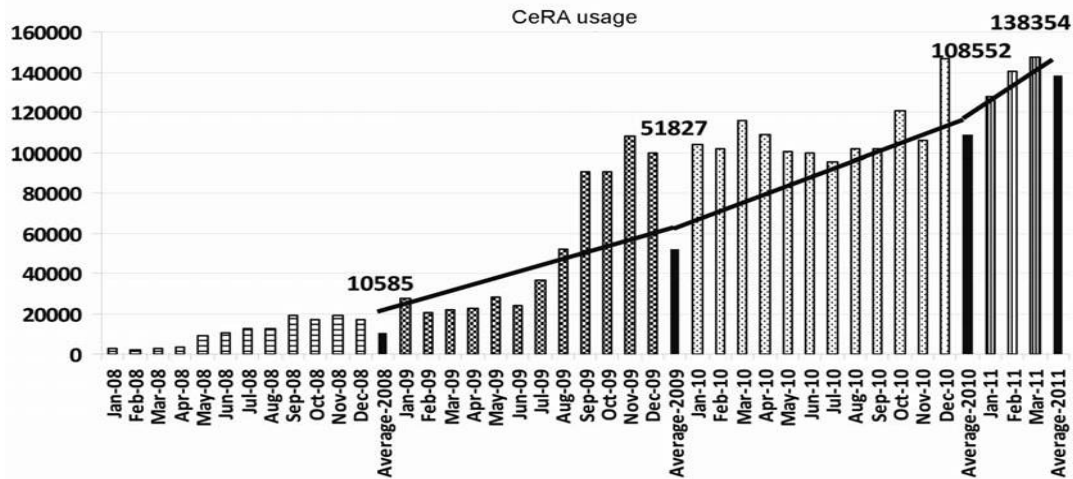


Figure 4. Usage of CeRA (measured through the download of full-text articles) by member institutes over the different calendar years (from January 2008 to March 2011).

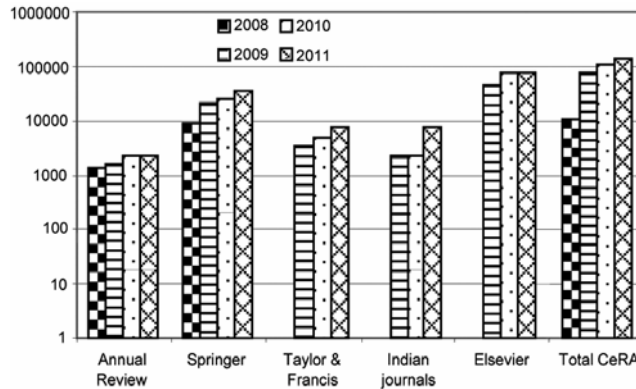


Figure 5. Number of downloads from different publishers over different years.

these categories reveals that CeRA usage among the DUs has been more than the other categories (Figure 7).

Evaluating the DDR service

To fulfil the information needs of the end-user, the DDR service has been initiated by CeRA in collaboration with about 134 libraries of member institutes to fulfil inter-library lending (ILL) request from users. The DDR

service is also known as the ILL service. ILL libraries together subscribe to about 1700 journals that are not available through CeRA. Any user from CeRA member institution can request for the reprint of an article from the journal, not subscribed by another CeRA member and get the same under Document Delivery Request (DDR) service.

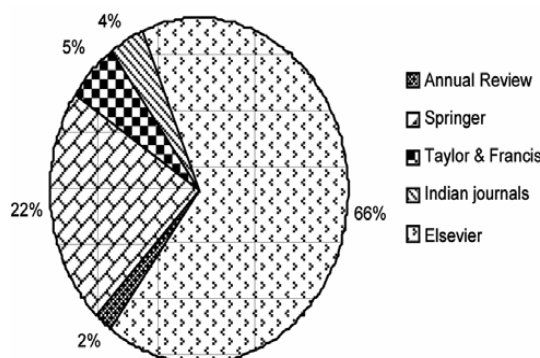


Figure 6. Usage (%) of different publishers by CeRA.

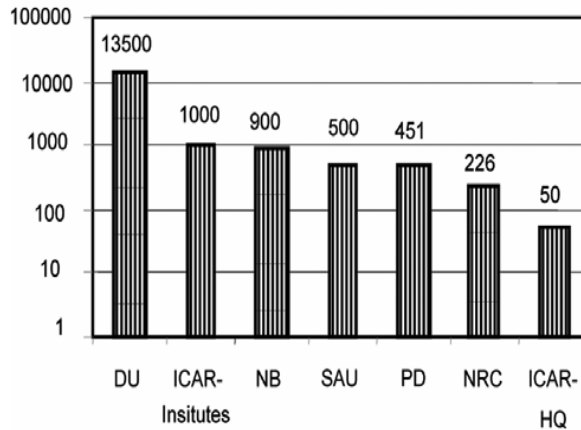


Figure 7. Category-wise classification of average no. of downloads per month. PD

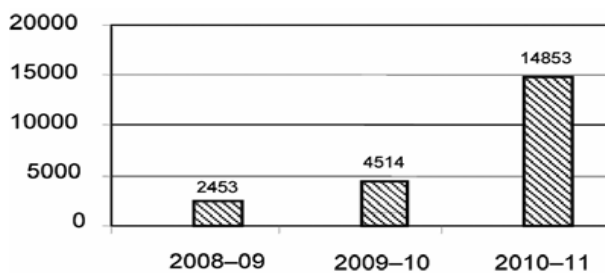


Figure 8. Document delivery request service status of the whole consortium in different years.

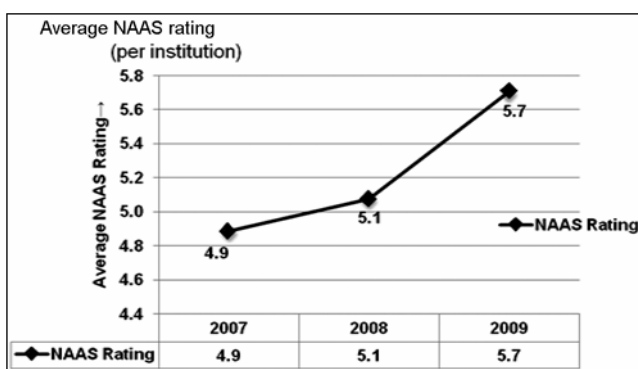


Figure 9. Year versus publications from member institutes in NARS before (2007) and after (2008 and 2009) the establishment of CeRA. Here, the number of publications and average NAAS rating are calculated for 43 member institutes that are availing CeRA facilities. It has been observed that there is an increase in quality of publications before (2007) and after (2008 and 2009) establishment of CeRA, as shown in Figure 9.

Evaluating the usage and cost-saving incurred one-journals subscription

The usage and cost-saving on e-journals subscribed through the consortium could be evaluated through the usage of e-journals. Accordingly, the average cost of an article was calculated for the whole consortium by dividing the total subscription cost by the total downloads for the years 2008, 2009 and 2010 separately. It is observed that the average cost of an article decreases with time due to better usage of CeRA (Figure 10).

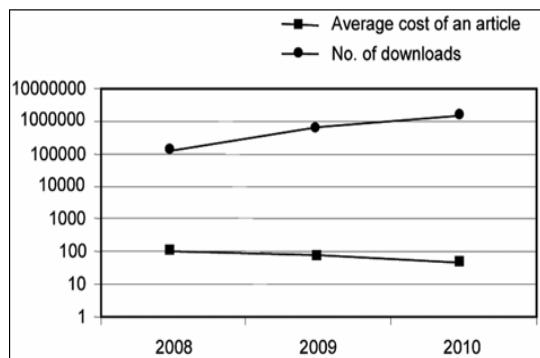
Concluding remarks

CeRA is an e-journal consortium facilitating 24 × 7 on-line access of select agricultural journals to all researchers in NARS through IP authentication. Starting with the concept of a consortium, we have



discussed the important consortia in the country and some of their salient features. Specific details of CeRA have been presented, especially the quantity and quality of research publications from some of the institutes under NARS, pre- and post- establishment of CeRA. The increase in quantity and quality of research

papers is not necessarily due to CeRA alone and other factors could have contributed to it. This is because of the fact that all publishers/journals in agricultural sciences are not available in the CeRA platform. Nevertheless, CeRA plays a key role in the research and developmental activities in NARS.



The progress of the DDR service in the CeRA consortium so far is presented in Figure 8.

Evaluating the quality of publications by end-users

The quality of publications in an institute under NARS is measured using the NAAS ID (which is the rating of journals in agricultural sciences, developed by leading experts and Fellows of NAAS and is available in the NAAS website (<http://www.naasindia.org/documents/jrnlis.pdf>).

1. Chakravarty, R. and Singh, S., e-Resources for Indian universities: new initiatives. *SRELS J. Inf. Manage.*, 2005, **42**, 57-73.
2. <http://ugcinfonet.jccc.in/about/about.asp>
3. <http://www.inflibnet.ac.in/publication/annualreport/AR-2009-2010.pdf>
4. <http://www.nmlermed.in>
5. <http://paniit.iitd.ac.in/indest>
6. <http://ejournal.niscair.res.in/index.phphttp://ejournal.niscair.res.in/index.php>
7. <http://delcon.gov.in>
8. <http://www.ncra.tifr.res.in/library/forsaweb/index.htm>