

OPEN ACCESS INITIATIVES: A STUDY OF NATIONAL RESEARCH CENTRE LIBRARIES OF ICAR

ABSTRACT

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Thesis**

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INTRODUCTION

Open access is a term used to define a new method of access to the literature. That is any reader has access to literature on the internet at zero cost. Open access, means its freely accessible on the open internet, allowing any users to search, print copy, read, download, distribute, search, or link to the full texts of these articles. No library can afford to subscribe to every scientific publication, and most can only afford a small fraction of them. The open access movement believes it can solve this problem to a great extent. Open access literature can be communicated through open access journals, open access archives or repositories and open courseware. To be “open access” means to remove the price tag and permission barriers to some extent. The single limitation is on reproduction and distribution, and the only role for copyright in this domain should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited.

Moed however, recognized that open access comes in many forms, either through open access journals, or electronic publication that freely make available academic resources irrespective of if they have been published before, that are deposited through self-archiving, by the authors or their representatives in personal home pages, institutional repositories and subject-based repositories.

STATEMENT OF THE PROBLEM

The problem chosen for the present study is entitled, “OPEN ACCESS INITIATIVES: A STUDY OF NATIONAL RESEARCH CENTRE LIBRARIES OF

ICAR". The present study focuses on status, plans and policies of open access initiatives in selected national research centre libraries of ICAR. The study aims to find out the main purpose of open access and ascertain the availability of infrastructure and budget for open access initiatives in the libraries of National Research Centre of ICAR. The study also find out the various challenges and hurdles in open access.

OBJECTIVES OF THE STUDY

The aim of the study is to assess the status of open access initiatives and what steps should be taken to implement it completely. The following specific objectives are identified to achieve the above aim:

1. To evaluate and assess the status and policies of open access initiatives in all research centre libraries of ICAR.
2. To find out the main purpose of open access.
3. To identify the type of documents and services those are open accessed.
4. To ascertain the availability of infrastructure and budget for open access.
5. To find out the various challenges and hurdles in open access.

HYPOTHESES OF THE STUDY

The following hypotheses are formulated based on aforesaid objectives of the study.

H₁: Open access services are provided inmost of the research centre libraries of ICAR.

H₂: All libraries of National Research Centre have policy for open access.

H₃: Most of the National research centre libraries are providing open access services for exchange of information.

H₄: There is sufficient availability of budget and infrastructure for open access services in

most of the National Research Centre Libraries.

H₅: Lack of technical manpower is the main hurdle in providing open access services in the libraries selected for the study.

SCOPE AND LIMITATIONS OF THE STUDY

Indian Council of Agricultural Research has 15 National Research Centers in all over the country. The scope of the study covers 11 national research centre libraries of ICAR all over the India. As the title suggests, “*OPEN ACCESS INITIATIVES: A STUDY OF NATIONAL RESEARCH CENTRE LIBRARIES OF ICAR*”, the study is confined to National Research Centre libraries of ICAR. The total population of survey comprises librarians of selected National Research Centre libraries of ICAR.

Table 1: List of National Research Centers of ICAR

Srl. No.	RESEARCH CENTERS	PLACE	STATE
1.	National Centre for Integrated Pest Management	NEW DELHI	NEW DELHI
2.	National Research Centre for Banana	TRICHI	TAMIL NADU
3.	National Research Centre for Citrus	NAGPUR	MAHARASHTRA
4.	National Research Centre for Grapes	PUNE	MAHARASHTRA
5.	National Research Centre for Litchi	MUZAFFARPUR	BIHAR
6.	National Research Centre for Pomegranate	SOLAPUR	MAHARASHTRA
7.	National Research Centre on Camel	BIKANER	RAJASTHAN
8.	National Research Centre on Equines	HISAR	HARYANA
9.	National Research Centre on Meat	HYDERABAD	TELANGANA
10.	National Research Centre on Mithun	MEDZIPHEMA	NAGALAND

11.	National Research Centre on Orchids	PAKYONG	SIKKIM
12.	National Research Centre on Pig	GUWAHATI	ASSAM
13.	National Research Centre on Plant Biotechnology	NEW DELHI	NEW DELHI
14.	National Research Centre on Seed Spices	AJMER	RAJASTHAN
15.	National Research Centre on Yak	WEST KEMANG	ARUNACHAL PRADESH

Table 2: List of National Research Centers of ICAR Selected for Study

Srl. No.	RESEARCH CENTRES	PLACE	STATE
1.	National Centre for Integrated Pest Management	NEW DELHI	NEW DELHI
2.	National Research Centre for Banana	TRICHI	TAMIL NADU
3.	National Research Centre for Citrus	NAGPUR	MAHARASHTRA
4.	National Research Centre for Grapes	PUNE	MAHARASHTRA
5.	National Research Centre for Litchi	MUZAFFARPUR	BIHAR
6.	National Research Centre for Pomegranate	SOLAPUR	MAHARASHTRA
7.	National Research Centre on Camel	BIKANER	RAJASTHAN
8.	National Research Centre on Equines	HISAR	HARYANA
9.	National Research Centre on Meat	HYDERABAD	TELANGANA
10.	National Research Centre on Plant Biotechnology	NEW DELHI	NEW DELHI
11.	National Research Centre on Mithun	MEDZIPHEMA	NAGALAND

NEED AND SIGNIFICANCE OF THE STUDY

Indian council of agricultural research is a prominent research institute in the agriculture field. This study will intend to evaluate the steps taken and available infrastructure for open access initiative by selected national research centre libraries of ICAR. It also discusses difficulties faced in open access initiatives and also various opportunities for open access initiative by the selected national research centre libraries of ICAR. This study will help to know the different open access services provided by the libraries, it will also help to know various factors affecting open access process. National Research Centre of ICAR are very prominent institute and plays a vital role in the field of research and development. National Research Centre libraries have very special and rich collection.

After going through an extensive survey on available literatures it is found that there is no such kind of study has been conducted yet on libraries of National Research Centres of ICAR so this study is totally significant and relevant in the context of Open Access Initiatives. The result of this research reveals whether the librarians are aware of open access initiatives and assess the status of open access initiatives. It also reveals the main purpose of open access initiatives and documents which are open accessed.

METHODOLOGY ADOPTED

The present study is focused on to identify the steps to be taken and planning of open access initiatives in the libraries of National Research Centre of ICAR. The study is focused on evaluation and assessing the status and policies of open access initiatives, to find out the main purpose of open access and to identify the documents and services that are open accessed in the libraries of National Research Centre of ICAR.

The methodology adopted for the study is described under the following subheadings; sample used for the study, sources of data; research instruments; data collection procedure and statistical methods used.

There are 15 National Research Centers of ICAR in all over the India. Out of the 15 National Research Centers, 11 research centres has been selected for study. Therefore this study was based on the data collected from these 11 National Research Centre libraries.

Questionnaire has been distributed to all these research centre libraries. But out of these 11 National Research Centers 1 National Research Centre that is National Research Centre for Meat, Hyderabad was not responded. So this study is limited to 10 national research centre libraries of ICAR.

The data was collected during the period of 2015-2016. For this librarian of selected National Research Centre Libraries were selected.

MAJOR FINDINGS

General information about the organization

Out of 10 National Research Centres, National Research Centre for Camel is the oldest research centre established in 1984 and National Research Centre for Pomegranate is newest established in 2005. NRCE has the maximum number of users 99 out of which 20 are scientists and 79 are faculty members. NRCC has the least number of users 28 enrolled in their library. Out of 28 users 13 were scientists and 15 were staff.

Infrastructure and Resources

In terms of print learning resources NRCC has the largest collection 8050 among all NRC libraries. NRCP libraries have 1779 numbers of print collections in their library

which is least in all NRC libraries.

In terms of availability of Information Technology infrastructure in concern libraries NRCM library has the largest collection 41 of IT infrastructure in their libraries. In which NRCP has the least no of IT infrastructure that is 3. Out of 10 research centres 7 (70%) has getting fund from ICAR and 3 (30%) research centres been receiving fund from Central government.

Budget is the main force behind providing smooth services in any library. 6 (60%) NRC libraries were getting budget for e-journals, 3 (30%) NRC libraries were getting budget for e-books, 1 (10%) NRC libraries were getting budget for repositories, 3 (30%) NRC libraries were getting budget for databases CD ROM online, 1 (10%) NRC libraries were getting budget for Audio/ Video cassettes, VCD'S DVD'S and 2 (20%) NRC libraries were not getting budget for miscellaneous heads.

It is found that 60% National Research Centres library were respond that they can't say library budget is adequate for providing open access services, 30% of National Research Centre libraries were said that library budget is sufficient for providing open access services. Most of the NRC libraries (60%) were exchanging information through open access. Only 1 (10%) NRC Library is using open access for setting standards.

Open Access Policy

In most of the libraries (90%) there is no written open access policy. Only National research Centre for Grapes has written open access policy. Most of the libraries (30%) have followed special security measures to control copyright/digital rights of e-resources. Most of the libraries (60%) organised their archives category wise and very

few libraries (20%) organise by selected articles. Most of the NRC libraries (80%) were member of Consortium of electronic resources in Agriculture (CeRA) and 40% of NRC libraries are member of ICAR e-consortia. Most of the NRC libraries (60%) were maintaining institutional repository. Most of the NRC libraries are not maintaining their statistics of the consortium which they are using.

Attitude towards of Open access Initiatives

Most of the librarians (60%) were aware of open access publishing concept from more than three years. Librarian of National Research Centre for Banana is not aware of open access publishing. All the librarians are aware of any initiatives in country to promote open access publishing. Most of the librarians (50%) were agree on the contention that open access publishing model will be more cost effective to the academic research community in the long run than the current subscription based model. Opinion of most of the NRC librarians (60%) they are agree that cost effectiveness of open access publishing model will be more cost-effective to the academic research community in the long run than the current subscription model. Most of the librarians (60%) have the opinion on cost effectiveness of open access publishing model is that publishing costs will reduce by implementing open access publishing model.

Most of the librarians (50%) thought that price based competition in which open access model becomes more widely accepted, publishers may compete for work on the basis of price as well as the strength of their journal brand and quality of service affects the quality of scholarly publishing process in a positive way.

Impact of Open access initiatives

Most of the librarians (70%) respond that after introducing open access services in the library the image of library improved. After introducing open access services in most of the libraries of National Research Centre (70%) the number of users increased.

There is no impact on annual budget of most of the selected libraries (60%) after implementation of open access services. There is no any significant change in the scientific output after introducing open access services in most of the selected libraries (40%) of National Research Centre of ICAR.

Most of the librarians (30%) were concerned about the significant move to open access publishing may disrupt the established system of scholarly publishing. In 20% libraries all staffs were efficient in handling of electronic information sources and services and in another 20% libraries majority of staff are efficient in handling electronic information sources and services.

Most of the librarians (50%) were not aware of pre-print open access initiatives and most of the librarians (70%) were also not aware of post print open access initiatives. Most of the librarians (50%) were not aware of open access journals.

Librarian's opinion regarding open access initiatives

Most of the librarians (50%) were strongly agreed that allocation of fund is influence the open access initiatives services in library. Majority of librarian (40%) were strongly agreed that developments in the field of ICT is influence the open access initiative services in library. Most of the librarians (40%) were strongly agree that other

institutions repositories and consortium were also influence the open access initiatives services in library.

Majority of librarians (40%) were strongly agree that to provide advanced services to users were influence the open access initiatives services in library. Majority of librarians (30%) were strongly agree that to attract the attention of higher authority were also influence the open access initiatives services in library.

Most of the librarians (70%) were strongly agree that lack of fund is a challenge and barrier in open access initiatives. Majority of librarians (30%) were agree that IPR issues are big challenge and barrier in open access initiatives. Most of the librarians (40%) were undecided that technical hurdles to accessing data are challenges and barriers in open access initiatives. Majority of librarians (30%) were strongly agree that lack of infrastructure facilities are big challenge and barrier in open access initiatives.

Majority of librarians (40%) were strongly agreed that lack of trained staff is a challenge and barrier in open access initiatives. 20% of librarians were agree that cost of providing open access services is high and users make less use of them and this is a challenge and barrier in the way of open access initiatives.

CONCLUSION

Research literature are accessible freely in the form of open access journals, institutional repositories (IRs) or open archives, open courseware, self-posting on author's homepages and so on. While open access helps digital inclusion of citizens in developing countries by bringing within easy reach full-text contents and development related literature, the Digital Library remains a knowledge repository of such citizens,

indigenous people, communities and institutions. Open access to knowledge is a model adopted by many international and intergovernmental forums, such as the World Summit on the Information Society (WSIS), for disseminating full-text contents to online communities. Open access publishing is increasing across many fields as a means of facilitating timely and equitable access to knowledge. Open Access accelerates the creation and widens the dissemination of scientific knowledge. Subject-based repositories are suggested to provide the best conditions for retrieval of scientific knowledge. Furthermore, in terms of economic efficiency, Open Access has the potential to significantly decrease the costs of scholarly communication.

Establishment of National Research Centers of ICAR are signs of entrepreneurial activities of faculty and academic units. Majority of National Research Center libraries are providing open access services to their users but still they have shortage of infrastructure and budget.

The objective of the study as prepared in the first chapter has been achieved. The policies and status of the selected NRC libraries were evaluated and find that most of the libraries have no written open access policy in their libraries. All the National Research Centre libraries are back bone of their parent organization and providing major services to achieve specific goals related to specific subjects. The libraries has collection of all print and non-print materials like books, journals, reports, patents, audio visual materials, CD ROM databases, online databases, e-journals and micro films.

Research findings indicate that most of the NRC libraries maintaining institutional repositories by which quite number of sources provide access to open access services, but they are not maintaining statistics of the consortium. Most of the librarians prefer open

access publishing model over current subscription based model. This indicates a bright future of open access publishing model. According to NRC librarians open access publishing model will be more cost effective and will reduce publishing cost by which we can use that money for other productive work. The finding also describe that NRC librarians thought that price based competition in which open access model become more widely accepted, publishers may compete for work on the basis of price as well as the strength of their journal brand and quality.

The steps taken for open access initiatives has been improved the image of the library the numbers of the users increased but there is no any significant change in the scientific output. Lack of fund is a big challenge in the path of open access initiatives in concern libraries of NRC.

The present study is greatly substantiated by the findings of this study in which the status of open access initiatives in National Research Centre libraries were find out by various means. Open access to information and knowledge is an innovative mode of scholarly communication aimed at the achievement of universal access to information and knowledge. While open access helps digital inclusion of citizens in developing countries by bringing within easy reach full-text contents and development related literature, the Digital Library remains a knowledge repository of such citizens, indigenous people, communities and institutions.

STRUCTURE OF THE THESIS

Chapter 1. Introduction: This chapter is introductory of the whole study. Starting from the role of libraries in research to the methodology adopted for this study was discussed

in this chapter in detail. In between functions and features of the special library, open access, open access initiatives in India, about ICAR, statement of the problem, need and significance of the study, objectives of study, as well as hypothesis, scope and limitations of the study, were discussed.

Chapter 2. Review of Related Literature: The second chapter is presented the literature review related to the study. It is subdivided into the concept of open access, open access in different countries, trends in open access initiatives and models for open access.

Chapter 3. Methodology: The third chapter is methodology which incorporates the various steps that was adopted by researcher to solve his research problems. This chapter is also divided into sub titles like introduction, objectives of study, hypothesis, scope and limitations of the study, sample selection and data collection.

Chapter 4. Open Access Initiatives: The Fourth chapter of this thesis consist theoretical part of Open Access Initiatives. In this chapter, the introduction of open access, open access practices, history of open access is discussed. Major open access initiatives which are landmarks of open access initiatives are also presented in this chapter. This chapter also explains ways of delivering open access, salient features of open access literature, impact on libraries, OA application tools, Open source software used in libraries.

Chapter 5. Analysis of Data and Interpretation: Tabulation, statistical analysis, interpretation, and graphical representation of the collected data from libraries are presented in this chapter.

Chapter 6. Discussion of Results: The result derived in the chapter “analysis of data and interpretation” is being discussed in this chapter in the light of analysis and observations made by the researcher.

Chapter 7. Findings, Conclusion and Suggestions: Presents the major findings and conclusion of the study. It deals with recommendations of the study and suggestion for further future research.

Bibliography: refers to the citations which are used in the text of thesis.

Appendices: encloses the questionnaires which was designed and used as data collection tools for the survey.