

Usage of Open Access Repository by Researchers of Agricultural Universities in Gujarat: A Study

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ABSTRACT

After independence, the Govt. of India gives the priority for the development of agricultural education and research activity. In 1964, ICAR draft Model Agricultural Universities Act for establishing new agricultural universities across India. The ICAR established 49 research institutes in various states and provides fund for agricultural education and research in the country. At present, there are 56 SAUs, 5 DUs and 1 CAU, 4 Central University with Agricultural Faculty in India. ICAR started e-consortium for e-resources and open repository for the research project. The researcher used the surveying method and questionnaire used for data collection tools. The researchers send 502 questionnaires and received back 276 with feedback. They used SPSS 16.0 for data analysis and created tables and gave some valuable suggestion.

KeyTerms: ICAR, Gujarat State, E-Consortium, Repository, Agricultural University

INTRODUCTION

Agriculture is the oldest and largest industry of the world, according to the Food and Agricultural Organization 6.916.185 billion people are engaged in 2010 in agriculture. India is primarily an agricultural country and 68.7% of the total population live in 593615 villages. Agriculture and allied sectors provide 41% employment and contribute 13.7% to GDP in 2012-13. After the independence, Govt. of India gave the responsibility to ICAR (Indian Council of Agricultural Research) for the development of agricultural and agricultural education. On the recommendation of Kothari Commission ICAR draft, a model agricultural university act which passed by the Indian Parliament and agricultural universities were established in the different states of India. The ICAR established 49 research institutes in various states and provides fund for agricultural education and research in the country. At present, there are 56 SAUs, 5 DUs and 1 CAU, 4 Central University with Agricultural Faculty in India. ICAR has held 9 divisions like (1) Crop Science (2) Horticultural Science (3) Soil Science & Water (4) Animal Science (5) Fishery Science (6) Agricultural Engineering (7) General Extension (8) Agricultural Education (9) Resource Management. ICAR has established 17 NRC, 51 ICAR research institutes, 6 National Bureaux, 22

Project Directorate and 60 AICRP in the country for enhancing the agricultural research in the various fields. It has launched the National Agricultural Technology Project (NATP), National Agricultural Innovation Project (NAIP), KrishiPrabha, and Consortium for e-resource (CeRA), e-Grantha Consortium, etc, for the agricultural research. KrishiPrabha, Consortium for e-resource (CeRA), e-Grantha Consortium are the innovative project sponsored by ICAR for the agricultural information dissemination in the country, besides the AGRIS. The ICAR acts as a repository and nodal agency of information and provides consultancy on all branches of agricultural education and research.

Agricultural Universities in Gujarat State

Gujarat is the one of the states of Republic of India which is surrounded by Rajasthan, Madhya Pradesh and Maharashtra and the Arabian Sea. Location of Gujarat State is in the west of India. Average 25-inch rainfall is there in monsoon. Govt. of Gujarat gives the priority for the development of agricultural and agricultural education research activity. As part of the result, the Govt. of Gujarat has started four agricultural universities, Kamdhenu University and agricultural research institute

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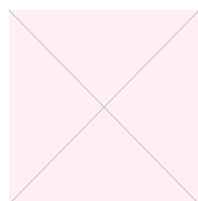
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in various districts. Names of the agricultural university is below:

- Anand Agricultural University, Anand
- SardarKrishinagar Dantiwada Agricultural University
- Navsari Agricultural University
- Junagadh Agricultural University

OBJECTIVES

- To know the value of information resources
- Get the information for available open access repository
- How to access open access resources and open repository
- Create the awareness of Open access resources and repository
- To increase the usage of open access resources
- To know the availability of open access repository in Agricultural science

LITERATURE REVIEW

Review of literature is a collective body of works done by earlier scientists and published in the form of books or in the form of articles in journals or published as monograph etc. Every scientific investigation starts with a review of the literature. In this study, the investigator uses the books, research articles, thesis, reports and website for his research works.

Carrie de Silva, the author provides information about agricultural education and research development at global level in the book "A Short History of Agricultural Education and Research". In the book, the author discusses the agricultural education development in European countries, when it was started and describes its development in the previous years at global¹.

Tamboli, P. & Y.L. Nene. In this book, the author highlights the information about the higher agricultural education challenges in India is timely for several reasons in his book. First, India's experience of the green revolution is based on the human capital investments it made in the early stages of its development after independence. This book contained information about agricultural education and research development in India².

Vishaki, P., the author provides information on "Consortium for resources in Agriculture" which is an e-Consortium of Agricultural Libraries under the Indian Council of Agricultural Research for National Agricultural Research System libraries. This paper provides information on agricultural related e-resources. The National Agricultural Research System of India comprises Indian Council of Agricultural Research and Central/State Agricultural Universities under Department of Agricultural Research and Education, Ministry of Agriculture, Government of India. The paper discusses the background, main features, and advantages of the consortium for e-resources in agriculture³.

Pace, Andrew. K., the author provides information about the digital library service and digital resources in his book "The Ultimate Digital library". The author describes the information in eight parts in the book and provides information about commercial digital library services⁴.

METHODOLOGY

The researcher used a surveying research method in his research work for the collection of primary data on the usage of open access resources and repository. The researcher used a questionnaire for data collection tools. The researcher distributed 502 questionnaires in research community like registered PhD students, Research Officer and Teachers and received back 276 questionnaires with feedback i.e. 54.98% responses were received. The investigator has used the SPSS-16 software to create tables and charts. For this purpose, the investigator has created 143 variables using version 16 of SPSS.

DATA ANALYSIS

According to research design, the researcher has collected primary data from users of the agricultural university library situated in Gujarat State. The questionnaire of the researcher covered 40 questions related to personal information, library timing, library usage, collection, AGRIS database and AGRIS services, e-resource, open sources and repository, ICT Infrastructure. The investigator sends 502 questionnaires to the researchers and gets 276 questionnaires with feedback.

o Age of Respondents

The table reflects that 107(38.8%) respondents are between 21 to 25 year. In the age group, 26-30 year respondents are 66(23.9) whereas in the age group 31-35 there are 19(6.9%) respondents. The table reflects that major part of the researcher i.e. 69.6% has less than 35 years that indicate that in the agricultural research young researcher are more engaged than the senior. As the age increases the number of researchers decreases.

Table 1: Age of Respondents

Age Group Year	Frequency	%age	Cumulative %age
21 - 25	107	38.8	38.8
26 - 30	66	23.9	62.7
31 - 35	19	6.9	69.6
36 - 40	16	5.8	75.4
41 - 45	23	8.3	83.7
46 - 50	25	9.1	92.8
51 - 55	14	5.1	97.9
56 - 60	6	2.2	100
Total	276	100	100

o University Wise Gender

Table shows that NAU has (16.67%), AAU has (12.12%), JAU has (13.04%) and SDAU has (22.22%) 15.9% it can be concluded that SDAU has the highest and AAU has the lowest female researcher.

Table 2: Gender Wise

University Wise Gender					
Gender	Institute				Total
	NAU	AAU	JAU	SDAU	
Male	65 (83.33%)	58 (87.88%)	60 (86.96%)	49 (77.78%)	232 (84.1%)
Female	13 (16.67%)	8 (12.12%)	9 (13.04%)	14 (22.22%)	44 (15.9%)
Total	78	66	69	63	276

o Designation Wise Respondents

On the table reveals that the registered PhD student i.e. research scholar or research fellow are found in highest

number i.e. 68.8%. The researcher officer is 4.3%, assistant professors are 11.6%, associate professors are 8% and professors are 7.2%. It is assumed that the professor, associated professor and research officers are engaged in applied and experimental agricultural research, they might be PhD.

Table 3: Designation Wise Respondents

Designation	Frequency	%age	Cumulative %age
Register PhD Student.	190	68.8	68.8
Research Officer	12	4.3	73.1
Assistant Professor	32	11.6	84.7
Associate Professor	22	8.0	92.7
Professor	20	7.2	100
Total	276	100	--

Qualification of Respondents

The table reveals on Qualification wise respondents. Here researcher shows that completed Ph. D respondents are 31.2% of 276 and pursuing Ph. D i.e. M.sc (Agri.) respondents is 68.8% of 276.

Table 4: Qualification of Respondents

Qualification	Frequency	%age	Cumulative %age
Ph. D	86	31.2	31.2
Pursuing Ph. D	190	68.8	100
Total	276	100	100

Satisfaction with Library Time

The table indicates that 81.9% of respondents are satisfied with their present library time and 18.1% of respondents are not satisfied with their present library time.

Table 5: Satisfaction with Library Time

Response	Frequency	%age	Valid %age	Cumulative %age
Valid	Yes	226	81.9	81.9
	No	50	18.1	100
	Total	276	100	--

Library Visit by Respondents

The table indicates that 28.6% respondents visit every day, 17.8% visit in twice in a week, 13.8% once in a week, 23.6% visit once in fortnight, 11.2% visit once in a month and 5.1% respondents visit rarely to the library.

Table 6: Library Visit by Respondents

Library Visit	Frequency	%age	Valid %age	Cumulative %age
Almost everyday	79	28.6	28.6	28.6
Twice in a Week	49	17.8	17.8	46.4
Once in a Week	38	13.8	13.8	60.1
Once in a Fortnight	65	23.6	23.6	83.7
Once in Month	31	11.2	11.2	94.9
Rarely visit library	14	5.1	5.1	100
Total	276	100	100	--

Library Collection

The table reveals that the highest library book collection is 53400 in Anand Agriculture University. The highest collection

of the report is 5440 and thesis collection is 5650 as shown in SDAU, 150 National journals subscribed in JAU and 177 National journals subscribed in SDAU, 78 International journal subscribed in SDAU, 45 International journals subscribed in AAU, 14000 bound held by JAU and 9926 bound volume held by NAU. It also shows that Library collection of almost all agriculture universities is very good.

Table 7: Library Collection

Sr. No	Collection	AAU	NAU	JAU	SDAU
1	Book Collection	53400	49300	42700	45600
2	Research Reports.	5287	4514	3277	5440
3	Thesis.	1478	1564	652	5650
4	National Journal	78	57	150	177
5	Int. National Journal	45	36	42	78
6	Bound Volume	8770	9926	14000	4150

Usage of AGRIS Database

The table reflects that the mean value of AGRIS e-book is 2.60 and with Std. Deviation 34.88, mean value of AGRIS online database is 1.81 with Std. Deviation 51.22 and mean value of AgNet Databank is 1.65 with Std. Deviation of 49.63. The users have rated the mean value of the AGRIS database is less than 0.92 for Agricola, AGRIS CDROM and other databases.

Table 8: Usage of AGRIS Database

Purpose	Mean Value	Standard Deviation	Co-efficient of Variation
AGRIS e- Book	2.60	0.907	34.88
Agrovoc	1.26	0.834	66.19
AGRIS online Database	1.81	0.927	51.22
Agricola	0.92	0.789	85.76
AgNet Databank	1.65	0.819	49.63
AGRIS CDROM	0.86	0.863	100.35

Usage of Open Repository and Resource

The table mention that researcher frequently used 43% CeRA and 25.6% users sometimes used DOAR. 20% of users never used KrishiPrabha but 23.5% researchers often used KrishiKosh.

Table 9: Usage of Open Repository and Resource

Open Repository & Resource N Value=276	Never Row N % age	Rarely Row N % age	Sometime Row N % age	Often Row N % age	Frequently Row N % age	Total Row N % age
CeRA	5	12	15	25	43	100
e-Grantha	13	17	22.5	29.5	18	100
KrishiPrabha	20	16	27	14	23	100
KrishiKosh	8	16.5	19	24	32.5	100
DOAJ	12	13	20	23.5	31.5	100
DOAR	14	19	25.6	15	26.4	100

FINDINGS AND SUGGESTIONS

The researcher should describe his/her results clearly, and in a way, that other researchers can compare them with their own results. They should also analyze the results, using appropriate statistical methods to try to determine the probability that they may have been chance findings, and may not be replicable in larger studies. But this is not enough. Results need to be interpreted in an objective and critical way, before assessing their implications and before drawing conclusions.

- 38.8% researchers age group is 21-25 and 23.9% researchers age group is 26-30.

- 15.9% of Female research respondents are engaged in agricultural research.
- Among the agricultural researcher, the major research community is registered Ph. D students.
- There is remarkable variation in satisfaction about library timing, but 44.2% of users are satisfied if the library remains open 10 hours per day.
- 60.2% of respondents visit the library at least once in a week and 23.6% visit once in a fortnight.
- Researcher average spends 2.1884 hours per day and 96.7% respondents use 1 to 4 hours library per day.
- 15% of respondents sometimes used CeRA whereas 43% respondents frequently and 32.5% users frequently used Krishikosh and 20% respondents never used.

SUGGESTIONS

The investigator analyses the collected data received from users and gives findings for the researcher. The researcher gives few suggestions as under

- The library should be open till mid-night
- Library professional should develop their skills and competence in Information Technology.
- Library personnel should start the digitization and institutional repository with the aims of ICAR.
- The major library user community is not familiar with online e-resource. It is suggested that library personnel should arrange the lectures for the use of e-resources.
- It is suggested that researcher should use library resources of other research libraries using internet, consortia and Web technology to enhance this speed and prosperous of the research.
- It is suggested that users should aware of their open resources and repository.

CONCLUSION

India is an agricultural base country and more than 50% labor force is engaged in agriculture. In our GDP 51% share is of agriculture. After the independence, Govt. of India gives the

priority for the development of agricultural education and research, so established ICAR for starting new agricultural universities and institute. ICAR started e-resource consortium and open repository for research project work.

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