#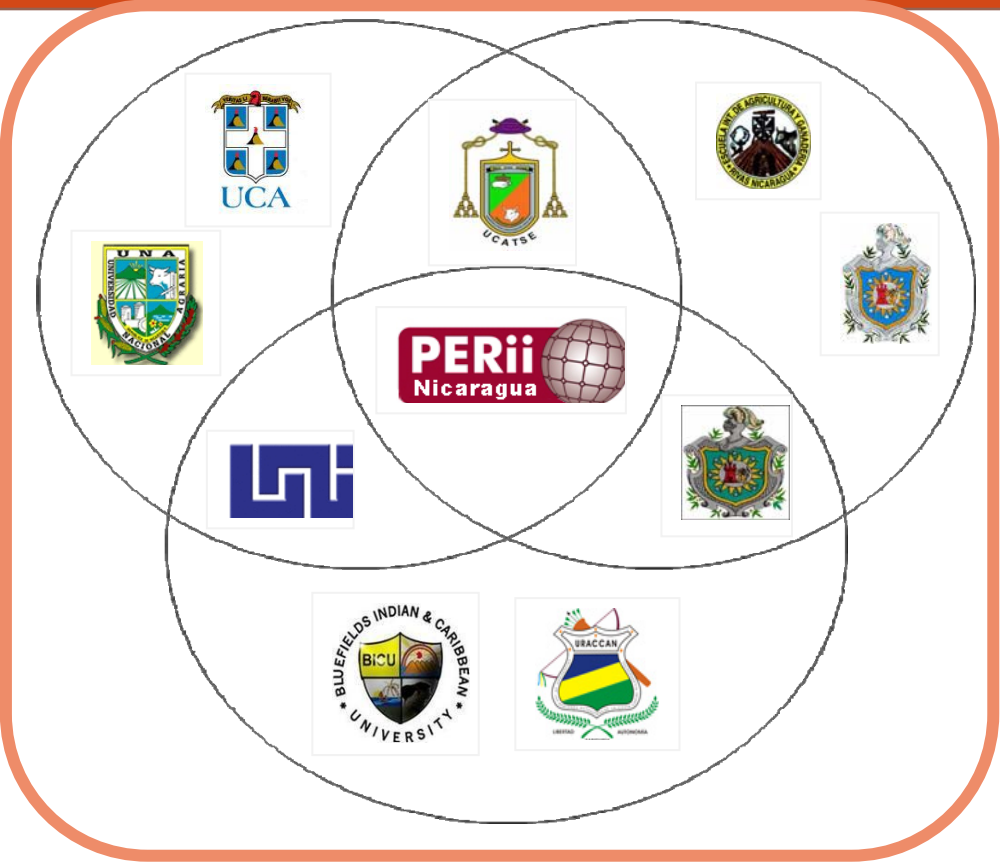 Bibliometric Study of the Use of Online Databases PERii Program during 2010 and PERii impact assessment in the three years of operation 2008-2011.

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Executive Summary

Includes the results of the research study on the Impact of PERII Program - Nicaragua, was conducted in all University Libraries members of the National University, CNU (UNAN-LEON, UCA, UNI, UNAN-MGA, UNA, EIAG , UCATSE, URACCAN and BICU) the referee announces the successful advancement, development, implementation, ownership and current conditions for the future sustainability of the program in the University Libraries, this was thanks to a team properly planned and coordinated with all the director 's Library PERII with coordination. This work led to the progress in implementing their Annual Operating Plan (POA) and the promotion and training strategies implemented by each of the libraries. It also details the actions PERII regard to strengthening the knowledge on new technologies, development of national and local competitions, promotion, identification of needs, strengthening the technological infrastructure and PERII of a team in each information unit. For the impact on the use of databases was taken as reference the reports of the International Network for the Availability of Scientific Publications (INASP) related to the EBSCO database, 2010 to be the most used database was applied bibliometric technique that includes a qualitative and quantitative data. In the analysis of behavior by each university and according to statistics 2010 presents the consolidated sessions, searches and downloads performed by university applied monthly average, maximum and minimum relative to potential users include the cost benefit. As the population surveyed, the most commonly used databases are EBSCO, Springer Link, ASABE, Taylor and Wiley / Blackwell. It presents a general summary on the program in three years PERII execution according to project components to be very important to present the results of valuable interviews with teachers, researchers and journal editors and finally unveils the findings of l @ s @ s director of libraries in relation to the work of coordination PERII.

The team of this consultancy PERII Coordination thanks for your support. A director University Libraries, the researchers, teachers, Tic's and journal editors, to give us interviews, so it could be possible the realization and presentation of this study.

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GRAPHICS

ACRONYMS

ASDI	Swedish Agency for International Development
BICU	Bluefield's Indian and Caribbean University
CIEMA	Research and Study Centre in Environment
CNU	National Council of Universities
EIAG	International School of Agriculture and Animal Husbandry
FIQ-UNI	Faculty of Chemical Engineering, National University of Engineering
FODA	Strengths, Weaknesses, Opportunities and Threats
FTI-UNI	Faculty of Industrial Technology National University of Engineering.
IES	Institute of Higher Studies, National University of Engineering.
INASP	International Network for the Availability of Scientific Publications
PERii	Program for Strengthening of the Information for the Investigation.
SAREC	Science of Anticipation Recognition Evaluation Control
TIC´S	Computer Technical Computer
UCA	Central American University
UCATSE	Catholic University of Dry Tropics Agriculture
UNA	National Agrarian University
UNAN-LEON	National Autonomous University of Nicaragua-Leon
UNAN-MGA.	National Autonomous University of Nicaragua-Managua.
UNI	National Engineering University
URACCAN	University of the Autonomous Regions of the Nicaraguan Caribbean Coast.

I. Background:

This program of the National Council of Universities (CNU) is an initiative of the National Agrarian University (UNA) in 2006 in order to support and strengthen the access of information for research within the Nicaraguan University Research System. In 2007 the project is prepared for submission to CNU to manage financing and began implementation in April 2008 with the support of the International Network for the Availability of Scientific Publications (INASP) and funding ASDI / SAREC.

The overall project aims to "strengthen the capacities of the National System Library and National Research System, through access to electronic resources of current scientific information and high quality for enhancing the impact and relevance of research in the field national, and strengthen national research production mechanisms publication of magazines and online. "

As specific objectives are: 1. Providing access to high quality electronic resources for researchers, 2. Develop skills in library staff, 3. Strengthening Tic's used to support access to these electronic information resources, 4. Strengthen national research production mechanisms magazine and online publications, and 5. Increase the presence of Nicaraguans through research publications and open access publishing.

II. Justification:

This bibliometric study aims to assess the use of databases PERii in 2010 to have information that supports the new or renewal subscriptions for electronic resources as part of PERI. Assessing the impact of the program offers insight into the successes and difficulties that have universities in the appropriation of PERI and strengthen the work to ensure sustainability.

III. Objectives of the consultancy:

Knowing the impact or degree of ownership that the program has had on PERii nine universities of the National Council of Universities to ensure effective access to electronic information resources at participating institutions and optimize the use and exploitation of the resources offered through PERii.

1. Carry out a bibliometric study of the use of databases PERII during 2010, with emphasis on those of a subscription in order to have reliable and updated information for the subscription or renewal of information resources.

2. Assess the impact of this program over three years of implementation in the member universities of the CNU.

IV. Methodology used:

Visits in each of the University Libraries. The analytical methodology used was descriptive; Bibliometric treatment was performed, qualitative and quantitative analysis to determine the impact of ownership that has PERii during 2010, related to training, promotion and use of databases with emphasis on character subscription in each of the universities under study, as well as evaluating the three years of implementation, it has been applied to the SWOT methodology in order to know their successes, failures and proposals, among others.

Variables and indicators were defined based on the objectives of the study for the design of work tools for information gathering.

Were developed and approved the following work tools:

- ☐ INTERVIEW GUIDE OF UNITS INFORMATION DIRECTORS
- ☐ INTERVIEW GUIDE LIBRARY
- ☐ TIC'S SURVEY FORM

Research techniques applied were:

We used this technique to the research team will assess the qualitative and quantitative information unit in each of the universities studied. In this phase, we reviewed various documents including: Reports, operational plans PERii the program, training plans, promotional strategies provided by the Coordinating PERii and each of the Directors of the Libraries.

☐Population Survey.

Surveys were conducted in all units visited information to identify the knowledge, management and use of scientific databases PERII the program. These were applied to teachers and researchers, librarians, users and Tic's.

☐ Working Team
The Task Force was composed of a Librarian Consultant with extensive experience in managing scientific information in the sector, with experience as an Assistant Librarian and technical support technician.

☐Method of working:

This methodology is based on continued coordination and interaction between the team consultant, counterpart, coordinator of PERII and staff of selected information units, directors of libraries, librarians and others, thus ensuring the commitment and participation institutions.

Development Plan Consulting:

The consultancy was conducted in 3 stages of work:

Stage I: Planning Your Work: At this stage the Consulting developed and submitted to the approval of the Coordination of the Implementation Plan PERII for visitors, the design of the instruments.

Stage II: Implementation of the consultancy: This phase was implemented the plan of visits, the whole process of interviews and collection of information.

Prior to the information gathering phase was defined minimum average of sample taken from each of the instruments: 9 Directors, Teachers 20, per university; by the University Librarian 3 (depending on the student population); Users 30; Tic's 2.

Also prepared a guide to facilitate interviews with teachers, researchers.

For the process of statistical data was used Excel. 5 were designed in SPSS databases that were used for entry and analysis of information gathered through the instruments of work for appropriate process, such as: database of library directors, faculty database, and library database; database Tic's y database users.

Stage III: Data Analysis and Development of Bibliometric Study Final Report.

In this stage performed the analysis and processing of all collected data supported all the tools and information provided by universities. We proceded to the final report.

V. Universe of the study:

The Universe of studio work comprised the 9 Universities Information Units in 13 members of the National University in the capital CNU, Departments and autonomous regions:

Table No. 1-Sample of Universities Surveyed

No.	UNIVERSITY RESPONDENT	DIRECTOR	LIBRARIAN	TEACHERS	USERS	TIC´s
1	UCA	1	3	15	14	1
2	UNI	1	6	20	30	2
3	UNA	1	3	20	30	1
4	UNAN-Managua	1	3	17	18	
5	UNAN- León	1	10	16	29	1
6	EIAG- Rivas	1	1	14	16	3
7	UCATSE-Estelí	1	2	18	32	1
8	URACCAN-Puerto Cabezas	1	9	18	31	2
	URACCAN-Bluefields					
	URACCAN-Nueva Guinea					
	URACCAN-Las Minas					
9	BICU-Bluefields	1	2	10	23	2
	BICU-Puerto		1	5		
Total Surveys		9	40	153	223	13

Table No. 2-Show of Interviews Authorities, Teachers and Researchers

No.	AUTHORITIES INTERVIEWED	DIRECTOR@S	RESEARCHER / EDITOR OF JOURNAL	TEACHING	TIC'S	OTHER
1	UCA		1			
2	UNI		1		1	The Directorate of Investigation conducted a survey.
3	UNA					
4	UNAN-Managua		1			
5	UNAN- León					
6	EIAG- Rivas		1	1		
7	UCATSE-Estelí	1	1			
8	URACCAN – PUERTO CABEZAS					
9	BICU Bluefields	1				

VI. Results of the Study:

It contains an integral analysis based on the terms of references. First we evaluated the "Impact and appropriation of PERii Program in 2010," to know the progress in the development of information services in each of the information units, indicating difficulties, needs and future prospects in the sustainability of these electronic resources, this aspect was taken into account opinions from authorities, students, teachers, librarians and others. Secondly a "Bibliometric Study of the Use of Databases in 2010," this component is taken as a reference database EBSCO being the most used and third evaluates the impact of the program during the three PERii years of program implementation in the universities Studies, here is a consolidated overview of the three years of implementation starting with a chronological overview, a summary by component, synthesis of interviews with authorities of the Library, are summaries of interviews authorities, researchers, journal editors and of Tic's on evaluative appreciations and recommendations on the program finally evaluative appreciations of the director 's University Libraries in relation to the support of the Coordination PERii Nicaragua.

6.1 Appropriation and Impact PERII Program in 2010.

Table No. 3-Aspects of the Impact on the Use of Databases PERii 2010.

IMPACT ABOUT ASPECTS IN THE USE OF DATA BASES IN EVERY UNIVERSITY PERII		
UNIVERSITY	DIRECTOR@S	IMPACT
UNI	Msc. Martha Elena Pérez	It has had a good impact, breakthrough on research conducted by students using PERII resources, impact on the quality of the certified information, effective information management.
UNAN-MGA.	Msc. Sidar Marín	The impact cost us much resistance to change but little by little has changed that culture.
UNA	Msc. Ruth Velia Gómez	The main impact in academia has been the incorporation of the Module Resource Use and Handling of Electronic Information in two Masters programs and lectures offered induction to the freshmen.
UCA	Lic. Gloria Morales A.	▪ PERii The project has impacted the creation, processing, transmission and diffusion of knowledge as well as other traditional functions of universities to research, teach and to to disseminate new knowledge. ▪ With PERii was initiated a dialog for exchange information and improve collaboration between institutions of higher education by promoting the development of quality, the effectiveness of University Libraries. ▪ PERii was a major challenge for the institutions of higher education, as it allowed the creation of a working environment for academics, librarians and researchers, and editors could reach points of reference, understanding and common ground. ▪ Today is a project PERii nationally recognized source of information built by universities and the universities with support from INASP.

UNAN-LEON	Ing. Adela Morales M.	PERii The impact of on the development of academic programs, this updated electronic information resources, timely, pertinent and quality are in some measure the input for the construction of new learning environments and the educational innovation. They are also a source of reference and consultation to support the curricular development and investigative of academics and students at the university obviously more accentuated in some faculties with respect to others. Survey was conducted in October 2010 where more than 55% of teachers surveyed stated that the databases will serve to support academic programs, 30% for investigation, 10% for project management and the rest for curriculum reform.
EIAG - RIVAS	Lic. María Luisa Barrios	I know that the teachers have made use of it and everyone seeks information of interest, also the working on tutoring projects, Thesis and work tell them to make use of databases and attend several of them here in the library. The control of use of databases with respect to the teachers we have no follow-up; this is reflected in general statistics.
UCATSE-ESTELI	Lic. Ivania Toruno Directora del CCAA	Teachers and researchers.
URACAN-PUERTO CABEZAS-BLUEFIELDS	Msc. Mercedes Tinoco Espinoza.	Has facilitated access to information resources through the facilitation of scientific databases, provision of computer equipment, servers, training staff, supporting the teaching and learning processes and research and offer of new services in libraries.
BICU-Bluefields	Lic. Francis María González	The investigators and finalists are using more reliable, hence their final products are of higher quality.

SUMMARY OF PROGRESS DURING 2010 IN THE IMPACT OF APPROPRIATION AND SUSTAINABILITY PROGRAM **PERii** FUTURE IN UNIVERSITY LIBRARIES OF THE CONSORTIUM PERII NICARAGUA:

→ The UNAN-LEON, in 2010 have strengthened the impact and the appropriation of resources in the community PERII for this POA University of the Library System, has integrated a training program directed to the personnel 2010-2011 academic undergraduate and postgraduate of the different faculties, and it has a plan for promoting the databases, this plan is executed exclusively by the computer PERII which has been strengthened, they are responsible for complying with the planned activities. Have managed to include the databases PERII the Institutional Strategic Plan 2011-2019, to have institutional support in the budgetary allocation for the payment of databases PERII and support of the Division of Informatics, has been strengthened communication and coordination between the faculties and libraries, have strengthened its technology to expand their bandwidth of 12 to 45Mb, created an Tic's room, for researchers at the Medical Campus Library. They also performed monitoring the use of the databases in October 2010; the survey reflects that 55% of teachers stated that the databases will serve of support to academic programs, 30% for investigation, 10% for projects and the rest to management or curriculum reform.

Strategies used:
▸ Coordination with Academic Vice, Vice-Rector for Research and Postgraduate Studies and Academic Secretary of each faculty.
▸ Meetings and presentations with optional councils.
▸ Personalized visits to heads of departments of the different faculties and graduate the coordinators of and postgraduate.

- Personal visits to students in faculties for disseminating the databases available on the Library System.
- Training of pre and postgraduate students.
- Preparation of posters and banners.
- Participation with stand in medical congresses, trade fairs and scientific events (conferences Univ.)
- Communication via email publicity and advertising flies.

PERii sustainability of the resources:

The University has all the conditions necessary for the sustainability of use of the resources PERII has the databases included in the Strategic Plan PERII of the Institution 2011-2019, included in the annual budget to pay for subscription, with the support of different bodies and authorities of the University. A strength is working in partnership with all the Universities of CNU.

→ **Universidad Centroamericana UCA** in 2010 progress has been made in the appropriation and impact of the use of databases, integrated with training activities and promotion in the Annual Operating Plan, POA Training activities have been undertaken directed to teachers and students promoting the use of PERii resources to support research in preparing their monographs, the promotion is done through the Library web page at all levels, has an area in which PERII promoted through banner and other advertising materials, as well as personalized attention to students, researchers and teachers; monitoring was performed use of the databases; developed competencies in library staff and computer, participating in all activities organized by PERii; has strengthened its technology infrastructure with the delivery of 5 computers to the use of these resources; has a team PERii; support for activities organized by PERii. They also have the support of the University Authorities.

Strategies used:
- Coordination with the University Libraries Consortium members PERii.
- Vice-rector Academic Coordination, Research and Postgraduate faculties
- Personalized training to students, researchers and teachers.
- Induction first year students
- Training for Masters students.
- Distribution of advertising material.
- Production of statistics on use of databases
- Monitoring the use of the databases
- Promoting the use of less-used databases.

PERii sustainability of the resources:

The UCA has excellent conditions for the sustainability of Electronic Resources PERii has the databases included in the Operational Plan PERII, POA, has created the conditions for their promotion to encourage the use of databases, has sensitized on the importance of the information in promoting the academic development the change of culture in the authorities and academics, is also the disposition of renew the subscriptions Magazines PERii.

→ National Engineering The University, **UNI**, in 2010, has managed to have good progress in strengthening the impact and appropriation of PERII Information Resources in the University community for this have included in its Annual Operating Plan, POA all PERII actions, also elaborated a training and promotion program that has allowed develop competencies in the library system, train and promote Teachers, Researchers and Students with the objective of gradually create a culture of research using these tools since the beginning of college. All activities are coordinated with the Directorate of Research and Vice-Deans of the Faculties to schedule class groups. These actions are held by the Group PERII UNI from the month of May 2011 PERII have two rooms one in each enclosure to attention of researchers, faculty, fellows, and interns.

Strategies used:

1. Meeting with Director of Research and I + D managers with the objective to establish strategies to promote the use of the databases, leading to the following agreements:
   - Institutional utilization of the mails to disseminate these training.
   - utilization of free software for the preparation and processing of online surveys
   - Methodological advantage meetings with the heads of teaching departments to coordinate and execute training.
   - I + D managers undertake to summon more teachers to be trained
2. Training of a group of students to search for specialized information in engineering and architecture.
3. Training the staff of the Library System Libraries UNI, UNI-IES Library, UNI-North Library, Documentation Centre - FIQ, Documentation Centre - FTI, Documentation Center of CIEMA.
4. Training scholarship student housing
5. Personalized advice.

PERii sustainability of the resources:

UNI has all the necessary conditions for sustainable use of resources PERII has the databases included in the Operational Plan PERII, POA, Library System, have influenced all levels, researchers, teachers and students have the disposition to renew the subscriptions Journals PERII in dependence of the availability Universitaria. A strength is working in partnership with all the Universities of CNU.

➜ **Universidad Nacional Agraria, UNA** in 2010, has managed to maintain leadership in the Consortium of the Universities PERii form the group promoting the use of these resources. As UNA, has strengthened ownership and the impact on the use of databases have included in its Annual Operating Plan, POA, PERii actions in which include chats to students and training in the use database of teachers and masters students of the Faculty of Agronomy and Rural Development, also have an exclusive PERii Plan. The CENIDA in 2010 until the month of August was in the process of remodeling its installations which limited the training process to users, have an excellent team PERII, which has supported the training process, has developed competencies the library staff. In the 2011 has created its PERII room, has strengthened its technological resources. PERII has been a place to disseminate the scientific journal of the UNA "Calera" in LATINDEX.

Strategies used:
- Coordination with the University Libraries Consortium members PERii.
- Vice-Rector Academic Coordination, Vice-Rectory of Research and Postgraduate and Academic Secretary of each faculty.
- Personalized training to Investigators and teachers.
- Training of undergraduate and postgraduate students.
- Preparation of posters, banners and other promotional material.
- Participation in preparatory courses, fairs and congresses Agricultural Agricultural technological.

PERii sustainability of the resources:

The UNA has excellent conditions for the sustainability of the Electronic Resources PERII has the databases included in the Operational Plan PERII, POA, has created the conditions necessary for their promotion to promote the use of databases, has sensitized about the importance of information in the academic development and research which has given increased visibility of the work of university libraries and a culture change in the authorities and academics, is also the disposition of renew subscriptions and PERII Journals that have a budget for it.

➔ The **UNAN Managua** in 2010, have made progress on the impact and appropriation of Electronic Resources PERii, is included in the Operational Plan actions PERii POA, also a specific timetable for execution of all training for activities, induction training aimed at promoting the use of databases aimed at students at all levels in an organized manner according to the plans of the faculties and increase the electronic consultation; PERii counts on a team trained in support of the execution of all training activities and promotion, to do different tools and strategies developed; has developed competencies in the staff of the library system, have been monitoring the use of the databases. They have excellent support from the authorities it has to perform all activities related PERii.

Strategies used:
- Member of the Consortium of Academic Libraries CNU-PERii
- Coordination with Academic Authorities and Powers of the Universities for activities.
- Preparation of promotional materials to promote the use of databases
- Personalized training to Investigators and teachers.
- Training for students on scholarships.
- Training teachers in the regional faculties.

PERii sustainability of the resources:

The UNAN-Managua with conditions for the sustainability of the Electronic Resources PERii has the databases included in the Operational Plan PERii, POA, has created the conditions necessary for their promotion to promote the use of the databases, the authorities are aware of the importance of the PERii Resources, are the capacity to renew subscriptions because "it is a great element to the investigation," according to Library Director.

➔ **International School of Agriculture, EIAG-RIVAS**, in 2010, have made progress on the appropriation and impact on the use of IAS Resources Database PERii, the authorities have appropriated the importance of the databases PERii have included in the Operational Plan POA, promotion and training activities of the databases, coordinate activities with different groups of every race, the library maintains a permanent promotion; have strengthened the technology, created a room PERii at the disposal of users by expanding the bandwidth of the University, and by providing students, researchers and teachers wireless network, conditions have also given students placing different access points to connect their equipment, a major achievement has been the awareness of the authorities for the appropriation of resources by teachers, researchers and ICT which has permitted raised new challenges to 2011.

Strategies used:

- Coordination with the University Libraries Consortium members PERII
- Coordination with teachers, researchers and teachers guides for induction.
- Coordinate with each career group
- Training for first year students
- Participation in courses promoted by PERII

PERii sustainability of the resources:

The EIAG-RIVAS, by itself has no conditions for the sustainability of the Electronic Resources PERII only if the same mechanism is used, there is appropriation of part of the authorities and academic research, have the goals in 2011, Achieve approval by the academic council of a rule in which each student works by containing at least one citation for any of the databases PERII project, conduct training to the early years, for this use hours to prevent truancy guides the students; Include in the training procedure for inserting the bibliographic references using the APA references.

➜ **Catholic University Agriculture of the Tropic Dry-ESTELI UCATSE** in 2010 the results have not been of impacted by what the appropriation of the program needs to be strengthened PERii have including actions in their operational plan, POA, the training has been directed mainly at teachers and researchers, they promote in their classes hours the use of databases to support research; have developed competencies in library staff, teachers and computer, working through 2010 to strengthen the technology by creating room for the exclusive use PERii of databases, creating strategies for use PERii has provided a server, there are currently limited bandwidth of wireless. There strength in awareness of the authorities which will allow more support to the Library and formalize the inclusion in the curricula PERii the actions of, are available to the authorities for the renewal of subscriptions to electronic resources provided PERii and used in the same mechanism.

Strategies used:

- Coordination with the University Libraries Consortium members PERII
- Coordination with teachers, researchers and professors guides for the promotion and use of bases.
- Promotion through the your website
- Training for first year students
- Participation in courses promoted by PERII for teachers, investigators and librarians.
- Distribution of promotional material.
  To promote culture change, encouraging research.

PERii sustainability of the resources:

UCATSE-ESTELI by itself has no conditions for the sustainability of PERii Electronic Resources, is available via the same mechanism used by PERii there appropriation of the authorities and academic investigation have the goals in the 2011, formalizing the inclusion in the curricula the actions of PERii; perform of induction and training for students from the first years inaugurating the room for this coordination PERii has provided a server. They are working in a project of to achieve better access to databases and the Library, you need accompaniment from PERii.

➜ **The Universities of the Autonomous Regions of Nicaragua** (Puerto Cabezas-URACCAN, Bluefields, Mines and New Guinea), in 2010, the Library System has made progress on the impact and appropriation PERii Resources have included actions PERII in the Operational Plan, POA, also implementing a program of promotion and training for teachers and students, staff competency development Librarian of Puerto Cabezas and the Exhibition Mine, extensions of Rosita and Waslala, talks to students induction of first entrance, was performed monitoring the use of databases, results were as follows: They have knowledge in of Internet use, to monitor the training, the resources are very important PERii allowing them to access quality information resources and contribute to the improvement the teaching-learning process training. They had a good technological development, strengthening their capacity with 4 servers provided by PERii, which were installed in the 4 libraries Bilwi Precincts, Las Minas, Bluefields and New Guinea in order to improve the connectivity, 4 computers for precinct Mine and extensions Waslala and Rosita, are strengthened in infrastructure but have weakness in bandwidth and connectivity and computer technical support to monitor and maintain these resources. The promotion and use been carried out through the intranet, through e-mail to teachers, coordinators and administrative work; Blog Library, elaboration and distribution of various advertising materials. They are supported by the University Authorities. Are ready to renew subscriptions PERii Resources provided you use the same procedure as according to the percentage assigned 6%.

Strategies used:

- Coordination with the University Libraries Consortium members PERII
- Coordination with teachers, researchers and professors guides for the promotion and use of bases.
- Promotion through the website, blog, intranet, email, processing and distribution of advertising material.
- Induction and Training Talks to first year students, teachers and researchers.
- Participation in courses promoted by PERII for teachers, researchers and librarians.
- Competence Development
- Strengthening of the technological infrastructure and Extensions of the Campuses Library System

PERii sustainability of the resources:

URACCAN by itself has no conditions for the sustainability of PERii Electronic Resources, is disposition through the same mechanism used by PERii, there is appropriation of part of the research and academic authorities, have the goals to follow up actions envisaged and implemented in the Operational Plan, Achieving have computer technical support for sustainability and maintenance have the technical resources of the Library System, to improve the bandwidth, resources and better access in 2011, formalizing the inclusion in the action Curricula of PERII, maintain competence development at all campuses and extensions.

- **BICU-BLUEFIELDS** in 2010 the Library System (BICU-Puerto Cabezas) have made progress in the appropriation and the Impact of Information Resources PERII have included actions PERII in annual operating plan, POA, which are included induction activities of student groups coordinated with the Spanish area of, train for students in 4th laboratories. - 5th. year teachers, development of competences in the library staff at the two Campuses (Bluefields, Puerto Cabezas); have been made monitoring the use of databases to students, teachers, computer scientists and librarians, the promotion was made through the website and the Library BICU, wireless network, the Library CIBER (30 Pc.), banners, advertising materials. They have an excellent PERII supported technological development, have installed a server, of connectivity equipment needed to strengthen its infrastructure, wireless network have in Bluefields, however, persists the problematic of connectivity in the Puerto Cabezas Campus has made it difficult the process of training Resources PERII Databases. It is supported by the university authorities are ready to renew subscriptions provided when available.

Strategies used:

- Coordination with the University Libraries Consortium members PERii
- Coordination with teachers, professors to induction activities, promotion and use of databases
- Personalized attention Bluefields is the case for those who have not received training.
- Promotion through the website of the University and the Library, elaboration and distribution of advertising material.
- Induction and Training talks to students, teachers.
- Participation in courses promoted by PERii for teachers, researchers and librarians.
- Competence Development in the library staff
- Strengthening of the technological infrastructure and support PERii Authorities through projects.

PERii sustainability of the resources:

BICU, has conditions for the sustainability of PERii Electronic Resources, is disposition through the same mechanism used by PERII, coordinated with the authorities, no appropriation of academic authorities, and has PERii team.

6.2 Annual Operating Plan Libraries, training, induction programs, promotion, budget and / or financial resources to strengthen the information services that provide PERII through databases to the entire university community.

a. University libraries have including development actions PERii Program in the POA:

Table No. 4-PERii universities have included actions in the POA.

UNIVERSITIES	YES	NO	OBSERVATIONS
UNAN-LEON	X		THE LIBRARY SYSTEM POA HAS A TRAINING PROGRAM FOR ACADEMIC STAFF, STUDENTS FROM PRE AND GRADUATE FACULTIES. HAS A PLAN FOR THE PROMOTION OF DATABASES.
UNI	X		POA THE LIBRARY HAS A TRAINING PROGRAMME FOR DIRECTED TO USERS NEW STUDENTS.
UCA	X		THE LIBRARY POA JOSE CORONEL URTECHO, HAS AN INDUCTION PROGRAM OF AND TRAINING DIRECTED TO STUDENTS AND TEACHERS, RESEARCHERS AND PERSONAL LIBRARY.
UNAN-MGA.	X		ACCORDING TO STUDENTS AND ACADEMICS THROUGH THE PLANS OF THE DIFFERENT FACULTIES OF THE UNIVERSITY
UNA	X		IN THE ANNUAL OPERATING PLAN IS INCORPORATED THE TALKS TO STUDENTS AND TRAINING IN THE USE OF DATABASES. TRAINING EFFORTS HAVE BEEN DIRECTED AT TEACHERS AND STUDENTS OF MASTER OF THE FACULTY OF AGRONOMY AND RURAL DEVELOPMENT HAS DEVELOPED DIFFERENT PROMOTIONAL MATERIALS FOR THE EFFECTIVE DISSEMINATION OF DATABASES PERII (BROCHURES, BANNERS AND CARTRIDGE). WE ALSO HAVE A PLAN PERII.
EIAG	X		IN DIFFERENT TRIMESTERS AS THEY ARE ACCORDING TO CLASS SCHEDULES WITH DIFFERENT GROUPS OF EACH CAREER, SO THE TRAININGS WERE PROGRAMMED
UCATSE	x		A FIRST ADMISSION STUDENTS, THE RESULTS ARE NOT ONLY IMPACT BECAUSE IT SPEAKS ABOUT THE LIBRARY SERVICES.
BICU	X		IN COORDINATION WITH THE SPANISH DEPARTMENT ARE ORGANIZED INDUCTION THE TALKS TO FIRST YEAR STUDENTS USING THE CLASS HOURS FOR THIS PURPOSE AND TRAININGS THAT ARE PROGRAMMED IN COORDINATION WITH THE TEACHERS OF THE DIFFERENT CAREERS PRINCIPALLY WITH THE CHAIR: RESEARCH METHODOLOGY
URACCAN	X		IT HAS THE PROGRAM WHERE THE TRAININGS INCLUDES THE UNIVERSITY COMMUNITY.

100% of University Libraries to 2010 have included in its Annual Operating Plan, POA induction activities for students, training for teachers, researchers, advocacy to promote the use of databases, development of competence for library staff directed at strengthening and development of the Information Services Electronic Resources Databases PERii.

Although all libraries have a range of development including promoting the use of databases PERii, they need more technical support will to implement strategies that attractive to students and researchers designed to promote the use of databases.

b) Universities that count in 2010 with budget and funding sources for Promotion and Training of Electronic Resources PERII.

Table No. 5 Detail of the universities generally has budgets and funding.

UNIVERSITIES	BUDGET		FINANC. EXTERNAL		INSTITUTIONAL SUPPORT OFFICERS, PROGRAMS.
	YES	NO	YES	NO	
UNAN-LEON		X	X		-OPERATES WITH VICE-ECONOMIC RESOURCES INVESTIGATION STEERING AND POSTGRADUATE. - SOCIAL-PROJECTION
UNI		X		X	
UCA	X				A 1.5% OF THE BUDGET ASSIGNED TO THE LIBRARY.
UNAN-MGA		X		X	COUNT WITH THE AUTHORITIES FOR SUPPORT THE IMPLEMENTATION OF THE ACTIVITIES OF TRAINING AND PROMOTION OF PERII
UNA	X			X	DO NOT HAVE A SPECIFIC BUDGET FOR SPREADING IN COMPONENT BUT PERII OF PUBLICITY AND PROPAGANDA COUNT WITH AN AMOUNT FOR THE PROMOTION OF RESOURCES PERII. THE DIRECTION-SUPPORT FOR RESEARCH, EXTENSION AND POST-GRAD (DIEP).
EIAG		X		X	COMPUTER SUPPORT COUNTS AUTHORITY TO MAKE AND FOR THE PROMOTION OF ACTIVITIES PERII.
UCATSE	X			X	HAS WORKED IN RELATION TO THE CONTEXT OF THE UNIVERSITY REAL. SUPPORT THE PAYMENT OF THE SUBSCRIPTIONS.
BICU	X				HAS WORKED IN RELATION TO THE CONTEXT OF THE UNIVERSITY REAL. SUPPORT THE PAYMENT OF THE SUBSCRIPTIONS.
URACCAN		X		X	

Table No. 6% of universities that have a budget or not

		frequency	percentage%
valid	Yes	4	44
	No	5	56
	Total	9	100

Figure No.1% of universities that have a budget or not

According to Table No. 6 and No. 1 graphic, 56% of Directors of University Libraries said no, they have internal budget allocated for training and promotion of the databases PERII 44% stated that SI have a budget.

Table No. 7% of universities that have with financing or not

		frequency	percentage%
Válid	Yes	1	10
	No	8	90
	Total	9	100

Graphic No. 2 has other sources of funding?
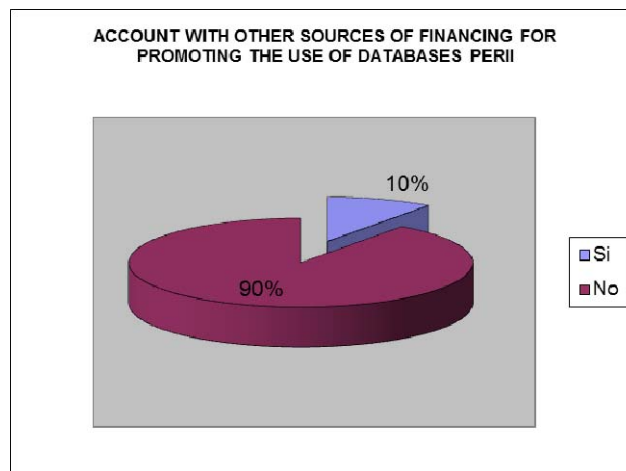
According to table No. 7 and the graph No. 2, a 90% of the universities do not have other sources of finance to promote the use of the databases PERII, 10% say they do have other external resources support the case of UNAN-LEON.

All have expressed the support of the higher authorities to conduct University activities of induction Students, Teachers Training for and Development of Competences Library staff. Authorities have appropriated of the importance of Electronic Resources of current scientific information to investigators and students nationwide.

3. The universities accounted for in 2010 for the Subscription of Electronic Databases PERII?

The result of this question to the Directors of the Library was diverse then is presented in detail by Library:

Table No. 8 About the Universities as contributed for subscriptions in 2010.

UNIVERSITY	CONTRIBUTION IN US$
UNAN-MANAGUA	US$2,000.00 DOLLAR
UNAN-LEON	US$10,000.00 SUBSCRIBE FOR TO THE DATABASE AND U.S. $ 5,600.00 PERII TO SUBSCRIPTIONS TO OTHER RESOURCES.
UCA	$1,923.56 DOLLAR.
UNI	US$2,000.00 DOLLAR
UCATSE	US$2,000.00 DOLLAR
EIAG	PERCENTAGE ACCORDING TO THE BE ASSIGNED BY THE 6%
UNA	US$1,923.56 DOLLAR
BICU-BLUEFIELDS	NO ANSWER
URACCAN	PERCENTAGE ACCORDING TO THE BE ASSIGNED BY THE 6%

4. After completion of the program PERii, the Universities are in a position to renew Subscriptions?

Graphic No. 3 the University has the capacity to renew the subscription?
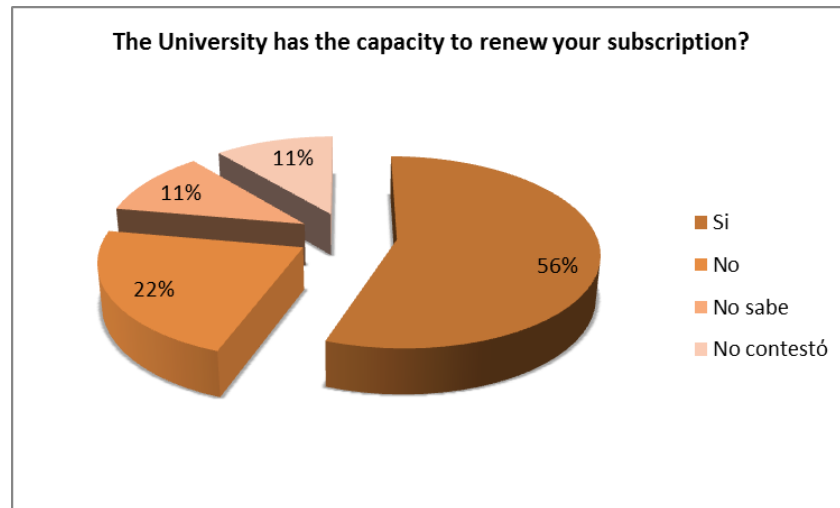
56% of the Universities said that if have the capacity to renew the subscriptions of the PERii Database is the case of UNAN-LEON, UNAN-MGA, UNA and URACCAN (if the percentage distribution is made). 22% say No, is the case of UCATSE and EIAG (only as long as they use the same mechanism used by PERii) 11% answered do not know, is the case of UNI, (depending on availability Institutional) and 11% did not answer, the case of BICU.

6.3 Advance in the organization and development in the Information Services Context PERii Resources 2010.

"**UNIVERSITY LIBRARIES TO OFFER PRODUCTS AND SERVICES ACCORDING TO ITS MISSION AND VISION AND RESPOND TO THE NEEDS OF USER INFORMATION AND VIRTUAL PRESENTIAL. SERVICES AND PRODUCTS MUST BE CONSISTENT TO THE TECHNOLOGICAL ADVANCES**" (SIBIUM. ESTÁNDARES DE BIBLIOTECAS UNIVERSITARIAS DE NICARAGUA. MANAGUA, 2008).

In 2010 the University Libraries to monitor SIBIUN the standards of theand according to the proposed objectives for this year by the Project PERii have managed the expansion and / or strengthening directed to the modernization of the Information Services of each of Information Units, creating rooms for service PERii exclusive for use of the Databases; have developed competency in library staff and of Tic's, strengthening technological infrastructure to support the project PERII; implemented promotional strategies at all levels promoting culture change in the authorities and the academic libraries have more visibility of the work through Network.

1. **INFRASTRUCTURE TECHNOLOGY:**

Table No. 9 Environment and equipment.

UNIVERSITY	ENVIRONMENT	EQUIPMENT	OBSERVATIONS
UNAN-MGA.	COMPUTER ROOM FIXED INTERNET		THE ROOM RESULT SMALL FOR THE STUDENT POPULATION
UNAN-LEON	TIC'S ROOM IN THE AREA OF HEMEROTECA (INTERNET FIXED). IN ALL AREAS OF THE LABORATORY LIBRARY AND INTERNET VIA WIRELESS.	INCREASE BANDWIDTH: 45 MB INSTITUTIONAL	COMPUTER EQUIPMENT EXCLUSIVE
UCA	NEWSPAPER LIBRARY AND REFERENCE IN THE AREA. -WIRELESS INTERNET FIXED.	COMPUTER EQUIPMENT DONATED 5 PROJECT PERII	ALL SERVICE PERSONNEL ARE TRAINED TO ORIENT TO THE USER
UNI	CREATION OF 2 ROOMS FOR EACH PRECINCT PERII A PERII EXCLUSIVE OF.	9 EQUIPMENT DONATED BY PERII. 1 DATA SHOW.	AND FIXED WIRELESS NETWORK
UCATSE-ESTELI	PERII ROOM CREATION OF 2011 COMPUTER LAB	DONATION OF PROGRAM SERVER PERII 1, 2011	ROOM INAUGURATION OF PERII 2011.
EIAG-RIVAS	PERII-LIBRARY ROOM WIRELESS NETWORK ACCESS FOR USERS	BAND WIDTH EXTENSION	
UNA	ROOM PERII, ORGANIZED THROUGH THE HEMEROTECA. COMPUTER CENTER DATABASE.	5 COMPUTER EQUIPMENT ROOM FOR PERII	
URACCAN	IS A LIBRARY SYSTEM, BILWI BLUEFIELDS, MINES AND NEW GUINEA. 2 OF THE LIBRARIES HAVE APPROPRIATE CARE SPACES AND TWO SMALL SPACE.	9 COMPUTER SERVERS AND DONATED BY PERII 4 THESE EQUIPMENTS ARE DISTRIBUTED IN THE LIBRARY SYSTEM	
BICU	HAVE ROOM PERII, COMPUTER ROOM (CIBER)	1 SERVER CONNECTIVITY EQUIPMENT	BLUEFIELDS CONNECTIVITY PROBLEMS .

Each Library has expanded to 2010 Information Services, directing actions to raise awareness of the importance of scientific information contained in the Databases PERII for academic and research; "are in some measure the input for the construction of new learning environments and educational innovation", (Lic. Ruth Velia Gómez). Competences have also been developed around the librarians and computer staff, which have strengthened the capacity of staff to management, counseling and promotion of reference PERII resources.

1. **SURVEYED LIBRARY:**

Table No. 10 About the Survey Respondents Librarians.

LIBRARIAN @ S SURVEYED OF THE AREAS OF INFORMATION SERVICES		
UNIVERSITIES	quantity	percentage
UNA	6	15,0
UCA	8	7,0
UNI	3	7,0
UNAN-Managua	5	7,0
UNAN-LEON	10	25,0
UCATSE	2	5,0
	9	23,0

URACCAN	1	3,0
EIAG	3	8,0
BICU	38	100,0
Total		

The sample was diverse, depending on the size of the library, there are cases like that of Leon, among others which are URACCAN System Libraries.

Graph No. 4 surveyed by University Library
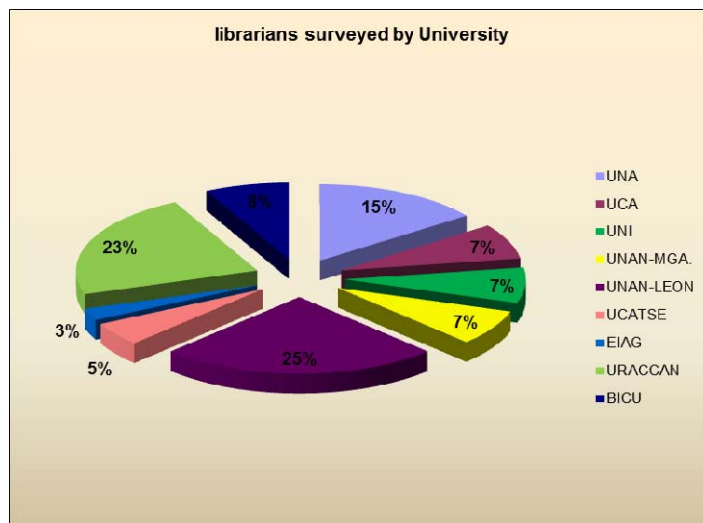
According to the table No.10 and the graph No.4, 25% of those surveyed corresponds to the UNAN-LEÓN; the 23% a URACCAN; 15% UNA; 8%, BICU; 7% UCA; 7% UCA; 7% UNAN-MGA; 7% UNI; 5% UCATSE y 3% EIAG.

Graph No. 5 Level Academic Librarian
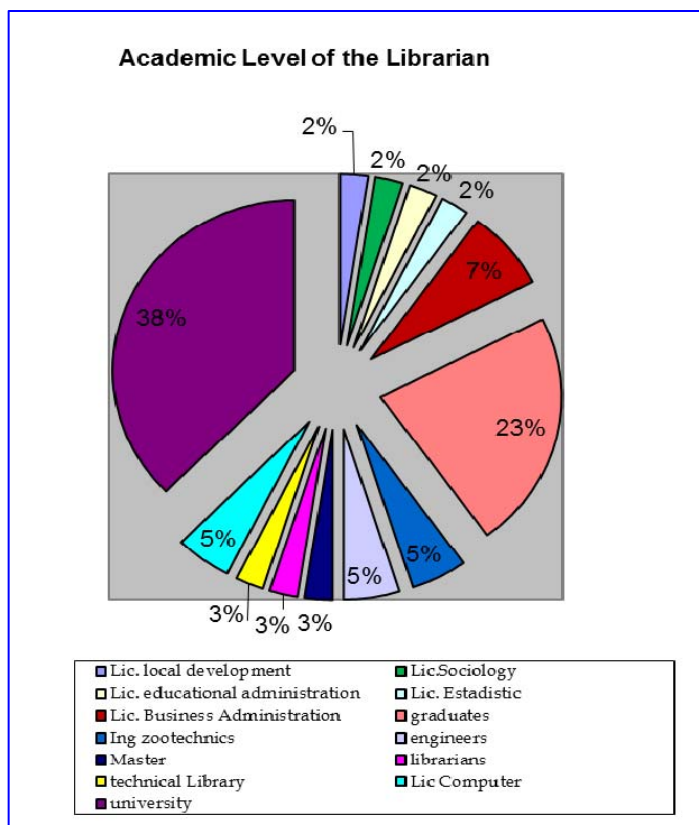
According to the graph No.5 37% of the librarian's are universities students, 23% are Licensed, 7% Lic. Business Administration, 5% are Graduates in Computer Science, the rest are Licensed in Sociology, Statistics, Engineering, Technical Library, among others. Very unprofessional of Information (librarians).

1. **THE LIBRARY ACCOUNT WITH PHYSICAL CONDITIONS TO PROVIDE TECHNICAL AND SERVICE ELECTRONIC INFORMATION RESOURCES PERII?:**

Table No.11 It has physical technical conditions necessary to provide service Information?

		frequency	percentage
valid	Yes	23	57,5
	No	17	42,5
	Total	40	100,0

Graphic No. 6 Necessary physical conditions of libraries, as librarians.
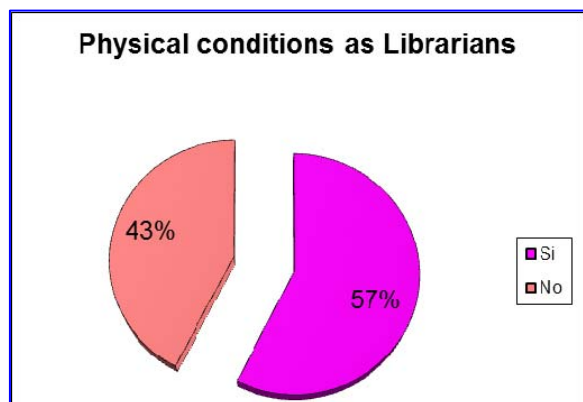
According to Table No.11 and the graph No. 6 the 57% Librarian's answered YES, Libraries have the necessary physical conditions to provide information services PERII, the 43% said no. **Responses of the Librarians**

Table No.12 Physical conditions as Librarian.

Physical conditions as Librarians	
BICU	We have wireless throughout the campus Network falls a lot It has the resources; there has been collaboration by Project about PERii.
URACCAN- LAS MINAS	We do not have a computer room to work with a lot of users (the lab most of the time is busy or there is a bad sign from the Internet) Only 4 equipment in have been regular The Internet signal is slow; We need technical personnel or specialized in information technology to support us with the management of technology: We do not provide educational material to release resources; In the library media room has no equipment (data show, laptop) we have to go looking for teams. We do not have conditions necessary as we have no of technical equipment, environment appropriate We do not have computer equipment (computers) necessary to provide that service Because we lack the equipment necessary to provide that service.
URACCAN BLUEFIELS	Some teams even for the number of users, space, technical support human resources available

URACCAN BILWI	No, because despite having knowledge and access to virtual databases and other resources offer important of information to users, we have no infrastructure, Continuous training library staff on information resources Technical support to meet user demand and to provide efficient service and quality to the community university Lack of a computer, lack of equipment for users and library staff training
UNI	The Library has a computer room consisting of PERii It has a specialized room equipped with modern equipment and trained personnel in the management of resources. Equipment Space
EIAG	In relation to equipment to the Internet, if they are in very good condition but lack even better about the lack of air conditioning and a spacious cubicle for better concentration.
UCATSE	There is no room PERII, There are no physical or technical conditions (bandwidth) for student access The number of machines is limited Irregular electrical service Appropriate environment
UNAN – MANAGUA	It has the institutional support The space is very small Suspend the Internet service when given the training It needs to broaden the bandwidth
UCA	4 equipment local catalog are destined for consultation of the databases PERii The conditions exist but they need to have more equipment to improve In the library we have 10 machines for provide service to turn when we need support from the laboratories of the University
UNA	Have 5 PC We have a room to provide personalized attention PERii Personal attention
UNAN LEON	The lack of equipment in relation to demand stops us from assigning a single computer for PERii. Sometimes there are connectivity problems We have a small room where the user Tic's the equipment made reservations for the search and retrieval . Because there are more computers and the staff is adequately trained to assist the user. Although we have an organized website and a moderately fast connection do not have enough equipment . There is a room where the user Tic's who requests access to these resources.

Table No. 13 on if the students consider that libraries have or not conditions.

		frequency	Percentage
valid	Yes	142	64
	No	60	27
	NR	21	9
	Total	202	100

Graphic No. 7 considers that the Information Unit has the necessary conditions for the use of the databases?

Conditions for the use of B.D. According to users
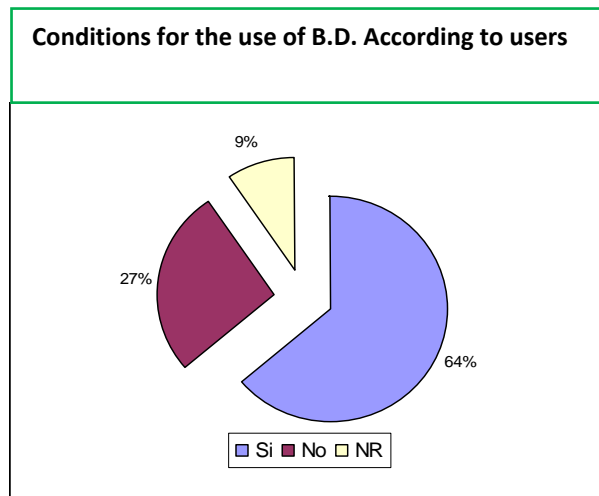
According to Table No. 13 and Graph No. 7, 64% of users have Physical conditions, 27% considered to have no conditions, 9% did not respond.

2. EACH GROUP PERII LIBRARY:

Table No. 14 Group PERii

UNIVERSITY	TEAM PERii	POSITION
UNI	o Martha Elena Pérez o Francisco Solórzano o María Eugenia Román o Wilmer Dávila	Library Director Informatics Informatics
UNAN-LEON	o Adela Benita Morales o Oscar Espinoza o Luvy Machado o Rembrandt Gutiérrez	Library System Director
UCA	o Gloria María Morales A. o Jimy Sevilla o Ana Patricia Talavera	Library Director Resp. information technology. Information Services
UNAN-MGA	o Sidar Rivera Marín o Harold A. González Villareyna o Eliud Ninoska Flores o Denis Rojas Venegas	Library Director
UCATSE		
EIAG	o María Luisa Barrios o Martin Jiménez o Cristian Gómez o Jaime Molina o Martha Lorena Cano	Library responsible Resp. Research / Inform. Server Resp. Resp. Laboratory Library Assistant
UNA	o Ruth Velia Gómez o Guillermo Rodríguez o Dilma Gerania López o Ernesto Correa	Director CENIDA Resp. Newspaper Analyst Report Selection. Network administrator of
URACCAN	o Mercedes Tinoco	Library System Director- URACCAN
BICU	Francis María González Informatics.	Library System Director - BICU. Informatics.

3. EVALUATION OF INFORMATION SERVICES L0S PERII:

In the year 2010 in the context of the project PERii have been strengthened information services, creating PERii rooms for specialized service exclusive of these electronic resources teachers, researchers and students, PERii Has been a component of technological modernization university libraries for all. Results are the following:

1. TECHNOLOGICAL ADVANCE: CREATING AND ORGANIZATION OF ROOMS PERii

Tic's rooms Medical campus

PERii Central library

UNAN-LEON

COMPUTER ROOM

UNA

UCA

Room PERii

UNI

ROOM PERii

COMPUTER ROOM

EIAG

Room PERii

UCATSE

Computer Room

UNAN-MGA

Computer Room

URACCAN
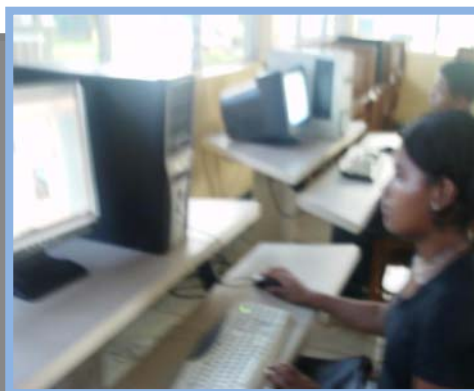
Bluefields

Puerto Cabezas

Computer Room

BICU

SALA EDUSOFT / PER

Bluefields

2.   GUIDES THE USER THE LIBRARIAN THE FOLLOWING MANNER:

- 100% of the University Libraries have PERII equipment, to support the execution of activities of induction for of first entrance users, training for teachers, researchers, undergraduate and graduate, have also developed competencies for Library and have the knowledge necessary technical guidance to users and the use of the databases PERii.

- 100% of the universities have on their website including access to databases PERII, in the case of BICU and Blog URACCAN also have to promote the use by any means, this year has significantly improved access to technology wireless network through UCATSE except they are in the process of improving this aspect including the bandwidth, continuous problem in Puerto Cabezas BICU related to the problem of energy and bandwidth, URACCAN Puerto Cabezas has power problem.

- They provide personalized attention, supporting the user in the procedure of online access to the system according to the profile of your career or specialty, in the case of teachers and researchers

- Promoting the use of databases through Banner, flyers, email and other resources.

> OPINIONS REGARDING THE USERS THE INFORMATION SERVICES PERII

THE SAMPLE OF USERS FOR EACH UNIVERSITY WAS 30

Table No. 15 Statistics of students surveyed.

		frequency	percentage
valid	UCA	14	6
	UNA	30	14
	UNI	30	14
	UNAN-MGA	18	8
	UNAN-LEON	29	13
	UCATSE	32	14
	EIAG	16	7
	BICU	23	10
	URACCAN	31	14
	Total	223	100

Graphic No.8. % of users surveyed by the University

% Of users surveyed by the University

Legend:
- UCA
- UNA
- UNI
- UNAN-MGA
- UNAN-LEON
- UCATSE
- EIAG
- BICU
- URACAN

According to Table No. 15 and graphic No. 8, 14% of those surveyed corresponded to the UNA, UCA, UNI, and UCATSE
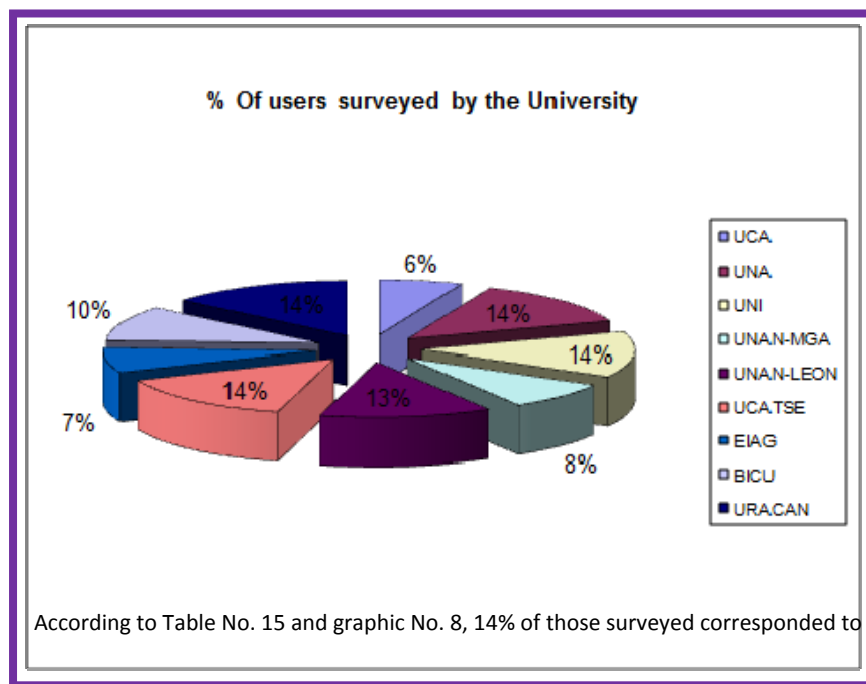
NOTE:

- 14% corresponds to 100% of the sample
- The majority of the universities were on vacation that makes it difficult the Compilation of information

Table No. 16 team who participated in the surveys.

CAREERS	
Social Science majoring in Local Development	Information Management
Agricultural Sciences	computing
Chemistry	Agricultural Engineering
Social communication	Civil engineering
Public Accounting and Finance	Systems Engineering
law	Electrical Engineering
Natural Resource Ecology	Industrial engineering
Applied Economics	Mechanical engineering
Electronics	Agribusiness
Spanish	Medicine
Endodoncy	Psychology
And Communication Philology	sociology
Social work	veterinary
	zootechnics

Table No. 17 faculties surveyed

FACULTIES	
Architecture	Medical Sciences
Agronomy	Pure Sciences
Natural resources	Chemical engineering
biology	Juridical Sciences
Educational Science	Informatics
Social Science and Humanities	Animal science
Science and Technology	Science Technology and Environment
Administrative Sciences	Sciences and Systems
Agricultural Sciences	Medical Sciences
Science and Engineering	Pure Sciences
Economics and Business	Psychology
Economic Sciences and Human	Juridical Sciences
Science Technology and Environment	
And System Sciences	Animal science
Rural development	Electro technical and Computer
Humanities and Communication	Industrial Technology construction

THE SAMPLE FOR TEACHERS AND RESEARCHERS WAS 20.

Table No.18 Teachers surveyed

University Teachers by		frequency	percentage
valid	UNA	20	13
	UCA	15	10
	UNI	20	13
	UNAN-Mga	17	11
	UNAN-LEON	16	10
	UCATSE	18	12
	EIAG-RIVAS	14	9
	URACAN	18	12
	BICU	15	10
	Total	153	100

According to Table No. 18 the 13% of those surveyed corresponded to the UNA, UNI, 12% UCATSE, 10% UCA, BICU UNAN-LEON, 9% EIAG,

NOTE:
13% corresponds to 100% of the sample
- The majority of the universities were on vacation which hampered the compilation of information.

Know Information Services Databases PERii?

Table No. 19 about whether students know PERii Databases.

STUDENT ANSWERS		frequency	Percentage
Valid	Yes	174	78
	No	40	18
	NR	9	4
	Total	223	100

Graphic No. 9 about whether or not students know, PERii Databases
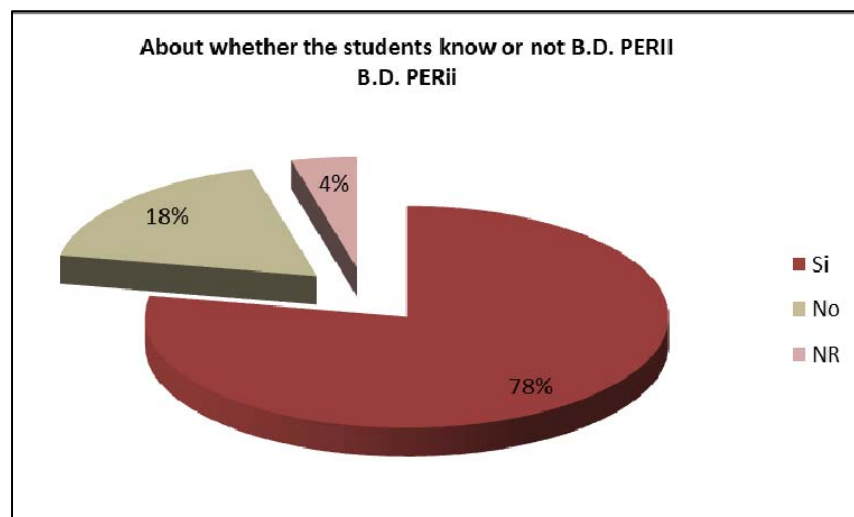
78% of students surveyed responded YES, they know the information services PERII Databases, by orientation of the Librarian @, 18% said they do not know, and 4% did not responding both cases declare that have not received training and / or training for use. This is because the majority of universities have not been active of induction practices, workouts are geared mainly to teachers and researchers.

Table No. 20 About if teachers know PERii Databases.

RESPONSES OF TEACHERS		frequency	Percentage
Valid	Yes	132	86
	No	15	10
	NR	6	4
	Total	153	100

Of 132 teachers and researchers surveyed an 86% if you know the Information Services PERII Databases, 10% did not know and 4% did not respond.

> **Through the users know that half of Databases PERii?**

The Librarian makes known through

Table No. 21 Method used by the Librarian to promote PERii.

LIBRARIAN @ S			
Method	YES	NO	**Not answered**
Posters	29	10	1
Brochures	11	28	1
Frills	23	16	1
E mail	18	21	1
Training	38	3	1
Internet	17	21	2
Website	35	4	1
Other methods	6	28	6

Graphic No. 10 About the method used by the librarian's for promoting PERii
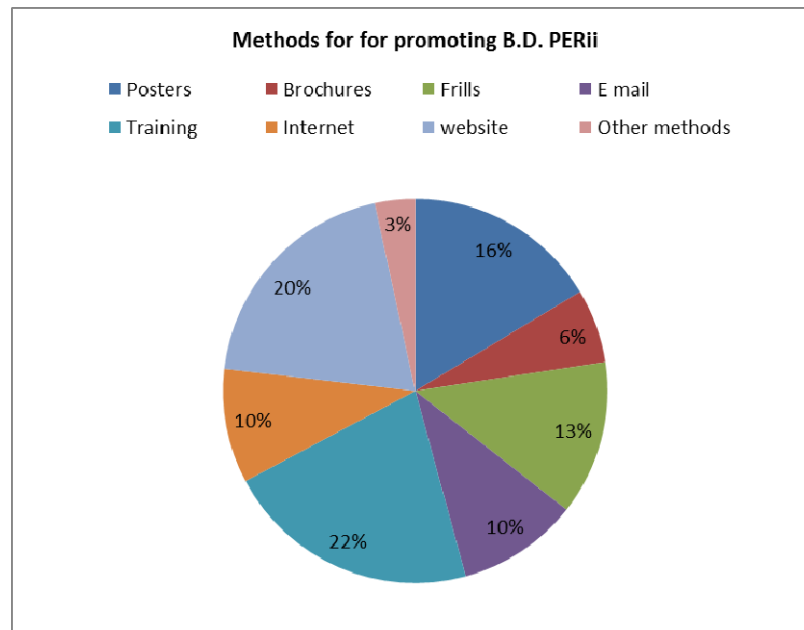
The tools through which the Librarian @ s announces the use of databases through the training are equivalent to a 22% Website 20% 16% Banner and posters, flyers 13%, Internet or mail e 10% Brochures 6% other 3%.

By order of the most used by the Library are: TRAINING, WEBSITE, OR BANNER posters, flyers, E-MAIL, BROCHURES AND OTHERS. This reflects the over the previous year universities doing advanced effective promotion through these media.

Means by which students know PERII Electronic Resources.

Table No. 22 Method used by the librarian's for promoting PERii.

Means	Quantity	Percentage
Poster	65	13
Brochures	42	9
Librarians	108	22
E-mail	7	22
Training	87	18
Web	75	16
Teaching	72	15

Graphic No. 11 Means by which the users know the B.D. PERii.
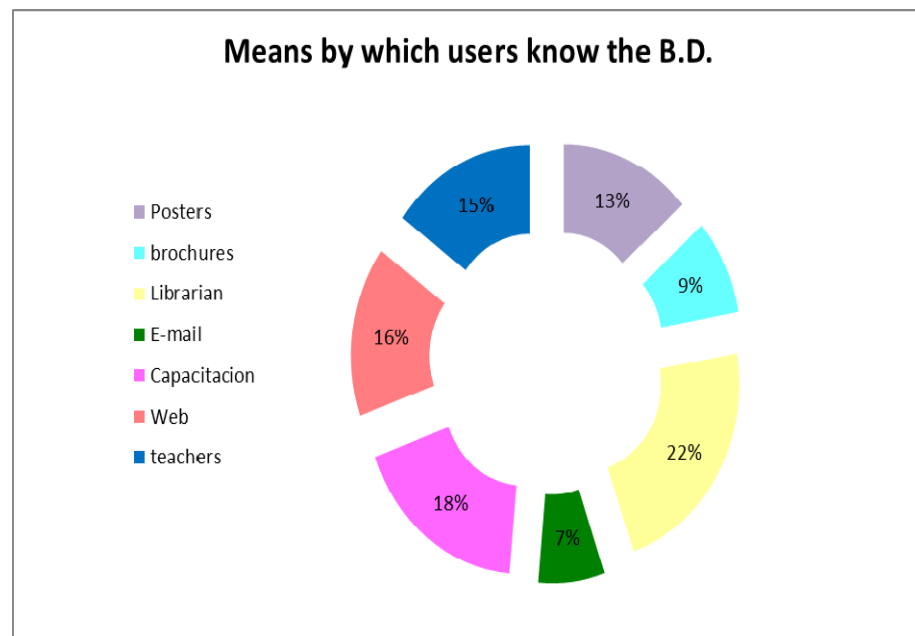
According to Table No. 22 and Graphic No. 11, to 22% of users know PERii bases through the **Librarian**, 18% through **training**, 16% through the **Website**, 15% **Teachers** 13% **posters**, 9% **Brochures** and 7% e-mail.

In 2010, always predominates the orientation of the Librarian, progress was made in the appropriation of resources through inductions and training take second place and third, the participation of the teachers orientating / or referring to students.

Means by which teachers and researchers know PERii Electronic Resources.

Table No. 23 Means by which teachers know PERii.

Means	YES	NO	NR
Posters	53	100	
Brochures	23	130	
Librarians	76	77	
E mail	36	117	
Training	93	60	
Web	39	114	
Teachers	36	116	1
Others	**10**	**143**	

Graphic No. 12 Means by which teachers know the BD PERII
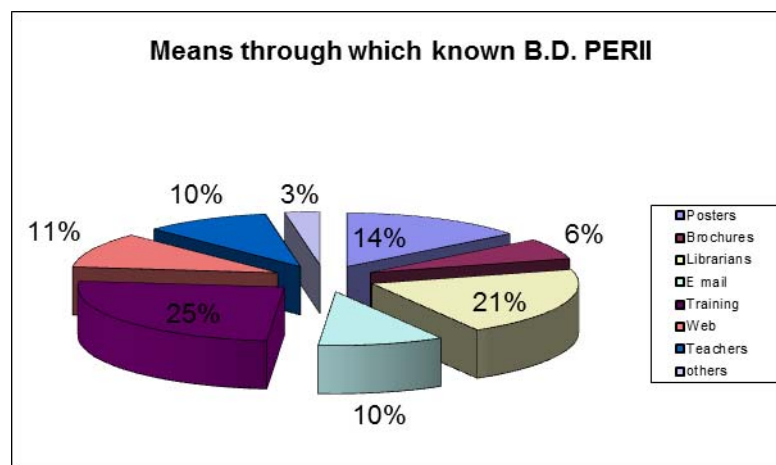
According to Table No. 23 and No. 12 graphics, the 25% of Teachers know PERii the bases through the training, 21% through the Librarian, 14% Posters, 11% of the Website, 10% to through the teachers, 10% E-mail, 3% other means.

By order, the mainstream media by teachers in 2010 have been through the training, librarians, Posters, Website, Teachers and Email. This means that the PERII Resources trainings have been carried out in a sustainable and that librarians have was strategic allies in this process in the promotion of use of the databases, also has conducted more use teachers through the Web

Means by which Tic's known Electronic Resources PERii.

Table No. 24 Means by which Tic's known PERii

Means	Yes	Not answered
Posters	7	6
Brochures	4	9
Librarians	9	4
E mail	3	10
Training	9	4
Web	9	4
Teachers	2	11
Others	0	0
Total	**43**	**48**

Graphic No. 13 Means by which the Tic's know the B.D. PERii.
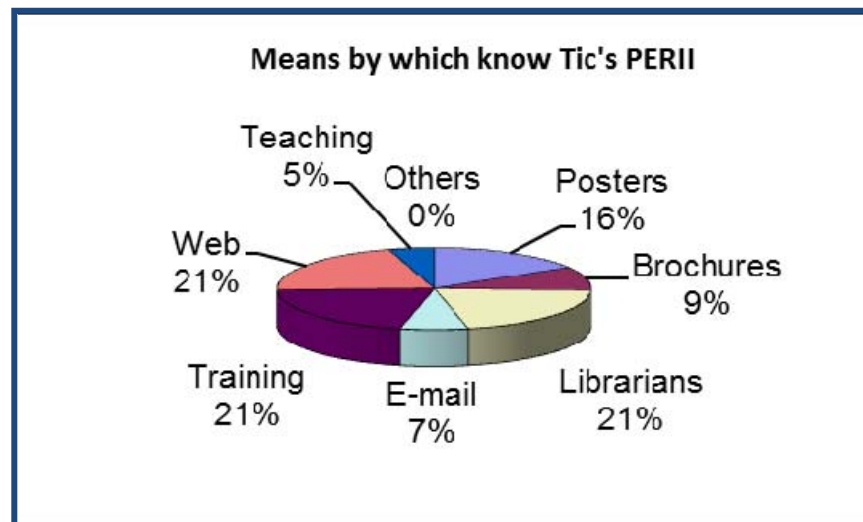
According to Table No. 24 and graphics No. 13, the 21% of Tic's PERii know the bases through the Web, the Librarian's and Training, 16%, Posters, 9% Brochures, 7% E-mail y and 5% Teachers.

In 2010, the means through which know the Tic's know the PERII Database has been through the **Web**, **Library**, **Training**, **Posters.** This demonstrates the importance of libraries have a website that provides access to the sources of information, trainings permanent development of new technologies that have served to improve the management of technology resources as a component Universities of modernization.

3. CONSIDER THE DATABASE PERii SATISFY THE NEEDS OF USERS?

Table No. 25 Whether PERII the Database satisfy the needs of users

ACCORDING TO THE LIBRARY			
		frequency	percentage
Valid	Yes	33	83
	No	5	12
	Total	38	95
	No answered	2	5
Total		40	100,0

Graphic No. 14 As to whether the Database satisfy users as Librarian.
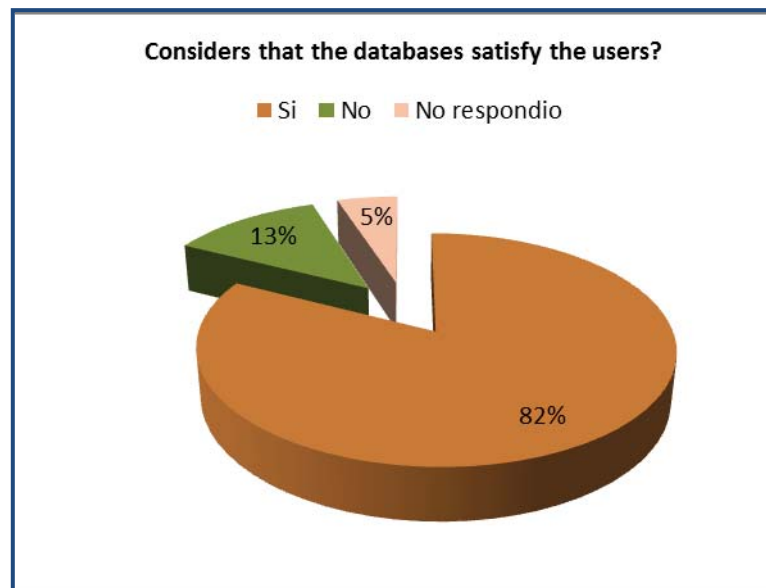
An 82% of librarians consider that the PERii Databases, meet the needs of users, 13% answered no and 5% did not respond.

Among the opinions provided by the Librarians concerning this point the most important details: Richer multidisciplinary your knowledge and are related the careers; Well for many that easily handle of office equipment is very timely and important to find information, full-text information available to date; contributes to strengthen their knowledge as future professionals; quality scientific articles where each article is standardized and updated; to read documents in English is a limiting; little culture of scientific reading and research; give them as a subject; a major limitation is that the training is not given users a chance to practice using them.

Table No. 26 As to whether PERII the Database, respond to their information needs

According to users			
		frequency	percentage
Válid	Yes	165	74
	No	45	20
	NR	13	6
	Total	223	100

Graphic No. 15 Over if the Meet Database responds to their needs
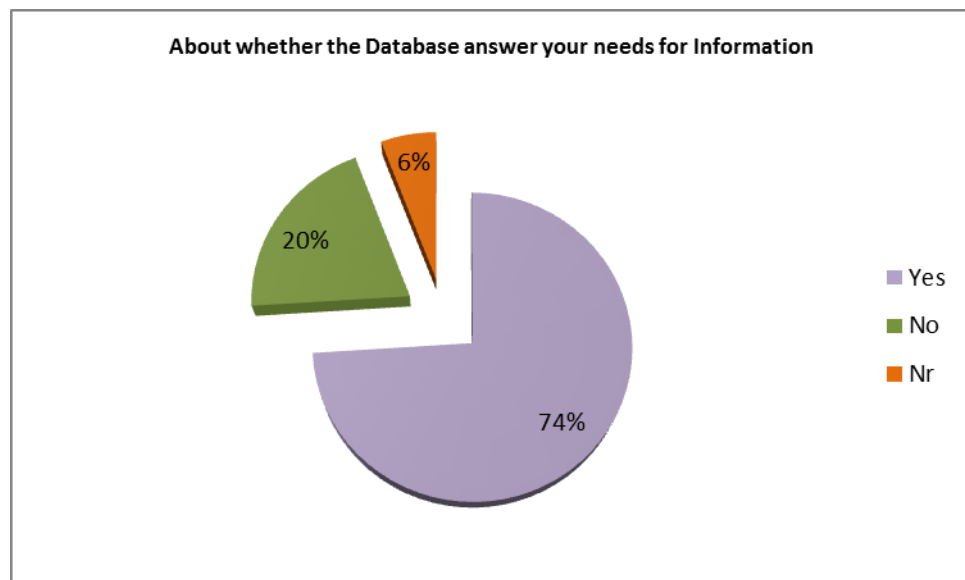
For 74% of the users answered yes, respond to their information needs, 20% said that does not meet your needs; 6% did not respond.

The opinions are synthesized by the following the users: Items are not free and not all the time the database is available, do not know, I have not learned to use, although this information is at the service, we have talked how to search for information, because I never find information about the subjects of my career, sometimes Yes, because we find what we seek, obtain more knowledge, as well as no management and search method is hard for me, because teach us not to use it and most are in English, sometimes I find it hard to download information very slowly.

4. TAKE CONTROL OF STATISTICAL INFORMATION SERVICES DATABASES PERɪɪ?:

Table No. 27 As to whether the Librarians have statistical control PERII Database

ACCORDING TO THE LIBRARY			
		frequency	percentage
Válid	Yes	11	27
	No	24	60
	NR	5	13
	Total	35	100

Graphic No. 16 over If librarians are statistical control databases
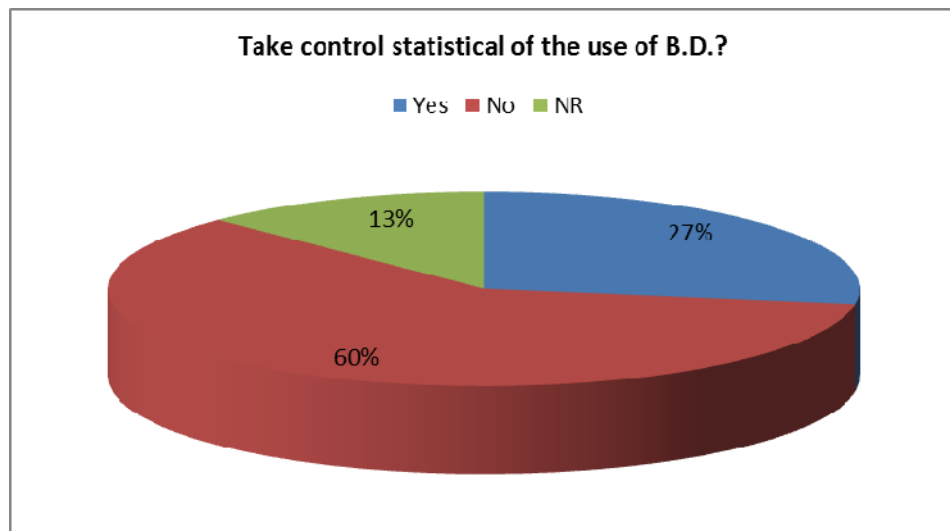
The 60% of the Librarians said yes, take control of the use of statistical databases PERII, 27% said no, 13% answered no.

The short answers were: **They have no local control of the bases but may know the use that users make through google stadistic counters, or other system implemented by the information unit; EBSCO's database is unique in having and provides the statistical system for knowledge of the use of the database by article download magazine and so on., has provided passwords to all universities through the coordination of PERII.**

Which databases are most used by users?

Graphic No. 17 According to Librarians databases used by most users.
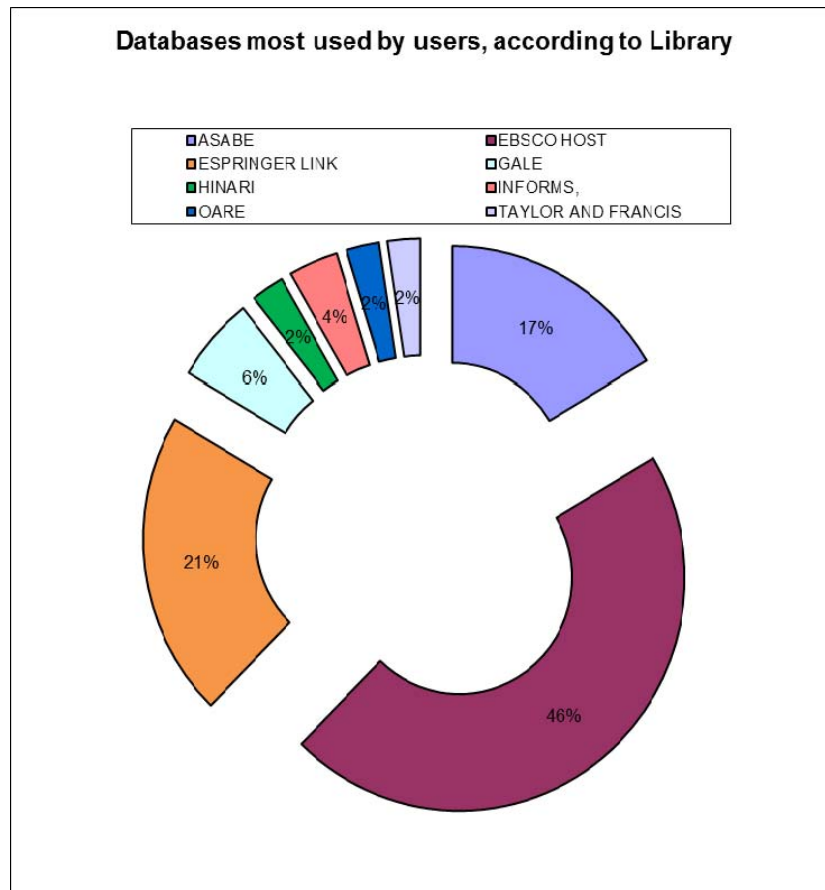
According to the graph No. 17 to 46% of students use the EBSCO Database, 21% SPRINGER_BASIC; 17% ASABE, 6% GALE, 4% INFORMS, 2% HINARI, TAYLOR AND FRANCIS, OARE, all other represents 1 %.

MORE USED BY STUDENTS**: EBSCO, SPRINGER_BASIC, ASABE.**

Graphic No. 18 Databases commonly used by Teachers and Researchers
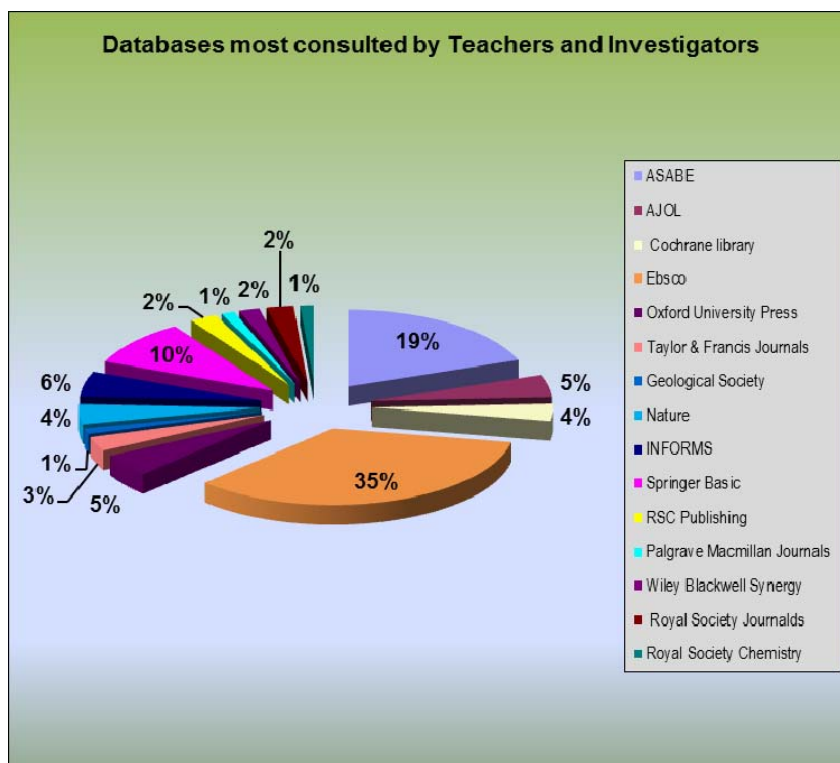
According to the graph No. 18, 35% of teachers and researchers use the EBSCO Database, 19% ASABE, 10% SPRINGER_BASIC; 6% INFORMS, 5% BLACKWEL WILEY, 4% NATURE, 3% TAYLOR AND FRANCIS, the rest less than 2%

MORE USED BY TEACHERS: **EBSCO, ASABE, SPRINGER_BASIC**.

In both surveys in, we note that an EBSCO database is the most widely used, has articles in Spanish and is multidisciplinary.

5. SEEKING INFORMATION GENERALLY AVAILABLE?:

Table No. 28 The information sought by the students is always available?

		ACCORDING TO STUDENTS	
		frequency	Percentage
Válid	Yes	153	69
	No	49	22
	NR	21	9
	Total	223	100

Graphic No. 19 the information sought by the students is always available?
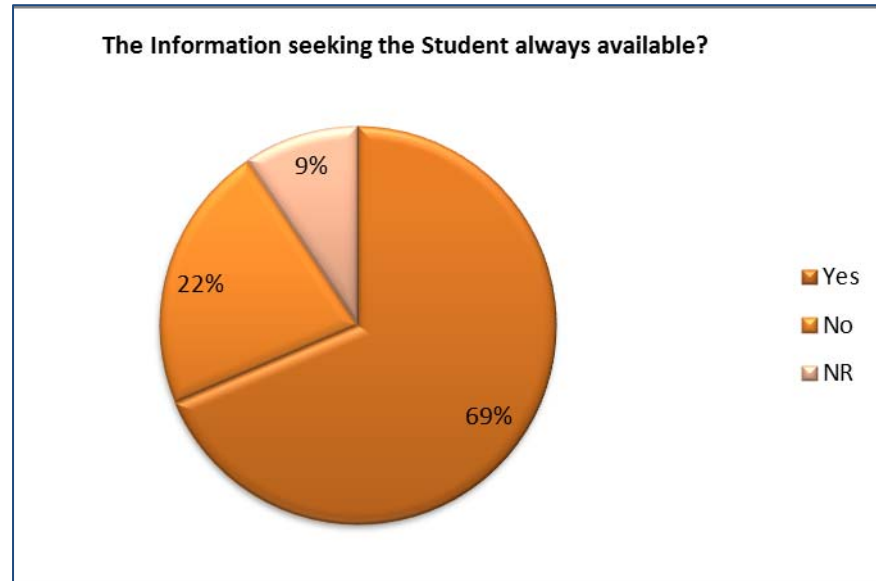
According to Table No. 28 and Graph No. 19, 69% of students find the information you search the databases PERii; 22% said no, 9% did not respond. In justifying their lack of responses indicated the following: I have not consulted by unknown, that of my interest is to buy the subscription, there is difficulty connecting, often tells the server or to buy the service, not free; can not be accessed outside the university, there is no opportunity to investigate, because sometimes they can not find the information you need, I know of its existence by the training received, in the case of my subject, there is little bibliographic information; prioritize other disciplines such as economics, very few of architecture, one more than other careers, slow connection, some of them are in another language translator while there is not the same or are not available at the moment, problems in using of the keys.

Table No. 29 The information sought by the students is always available? According to teachers...

ACCORDING TO TEACHERS - RESEARCHERS			
		frequency	Percentage
Válid	YES	106	70
	NO	36	24
	NR	11	6
	Total	153	100

Graphic No. 20 The information sought by the teachers is always available?

The information sought by the teachers in the database is always available?
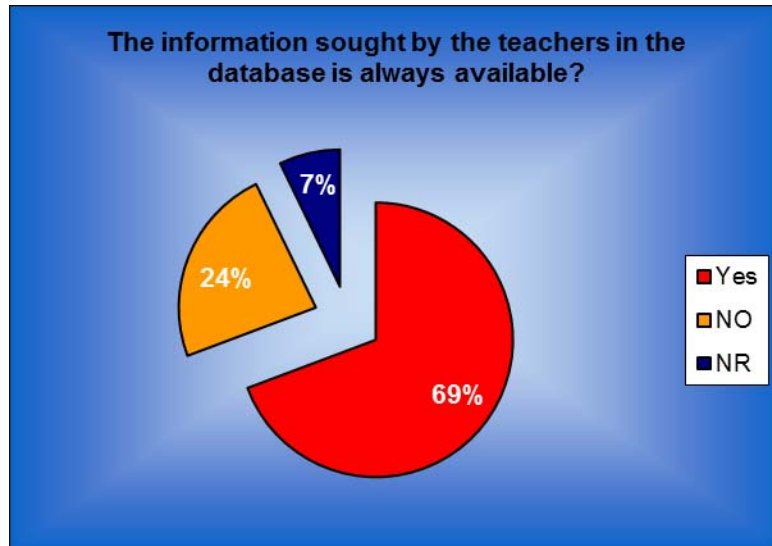
According to Table No.29 Graph No. 20, 69% of teachers find the information you are looking PERII databases, 24% said no, 7% did not respond.

Opinion of Teachers and Investigators:

- There are very few journals in the area, when you want to get the article sends the message "access to this constant is restricted", suggest you purchase the right.

- They removed some databases such as Taylor and Francis.

- In some cases searching for information on very specific areas, is very slow, and in other cases the information is limited, this means that some scientific articles are available only summary.

- Not always find the information and are often in English.

- Generally look for work on quality management, production strategies and cannot find.

- It is oriented to other areas of formation and not to profile the career.

- In the case of systems engineering knowledge about is very little information.

- Because what we seek is usually application software and not a study or research on them.

- Generally, the network fails

- So today I am the knowledge and skills on the subject

- The use is not very accessible because of ignorance of it, is unaccustomed

- The majority of articles are in English

- The database is very limited the number of magazines available is very poor.

- I found no related information teaching materials which serves to.

- ⬥ Sometimes it you cannot download the information can only be read at other times not is the full text.

- ⬥ Cannot find information about navigation, hydrology, oceanography

- ⬥ In the general no, because there is not much information about technology.

- ⬥ Sometimes we have problems of bandwidth.

- ⬥ I believe that not all the library books in physics, are in this virtual library has made it difficult to find the documents, and the majority of the databases are in English.

- ⬥ Not all the information can be found but it is a great help to the investigator

- ⬥ My search is primarily for methodology or methodological strategies in the area of Agrochemical Sciences and Biotechnology, PERII I could not have access to the full text of articles sought.

6. BENEFITS OF THE DATABASES PERII?:

Users

UNAN-LEON
Updated information
Here you can find updated information on the topic of endodontic
Having amplitude of scientific information
Help in the research work
Many scientific articles are published in these data bases so I enrich my knowledge and has helped me advance my thesis topic.
More accessible to quality information
The results are the most current investigations, and issues of primary importance worldwide, are very reliable basis of documents.

BICU
Encounter information secure and updated
Consider that the principal benefit is to have available a great source of scientific information useful for investigations.
Always be updated with the technology, and strengthen the research, the mechanisms of magazine and online publications.
It is of much benefit, since the search is secure and appropriate information is found when making the investigations, it is easier to come to search the file the code with the name of the book you want, the program PERii is lighter, easier and accessible the information.
Access to Information and Quality Certified
Information for my investigations and homework

EIAG
Date and reliable information
More coverage of information in our career veracity of the information
Because we can satisfy our needs investigation on different topics of interest.
The principal benefit is to find a wide range of information of a specific topic to compare and take the ones you serving the user
Increased knowledge in my area
Strengthening our knowledge

UNA

Utilization of updated knowledge

Access to information that is needed for both research work and to update specific content and teaching.

Fast the search for the information Availability of the information

There are many benefits including and the most important is to satisfy our needs for information search.

It could facilitate the user to find their professional capacity studies and interest

To obtain information for my thesis makes it easy to me and give me books that I'm really going to fall.

A great benefit because much valuable information is obtained from international studies, also helps to enrich our knowledge.

I have no benefit because I have not used

Update of my knowledge

These databases are very useful as they are completely safe and magazines that are published and reviewed by the best specialists in each area and profession.

Scientific articles that are updated daily

UCA

Accessible information

It is the most current information made by experienced professionals

I can learn about history, culture and curiosities as a student looking to benefit themselves and me facilitates my learning.

More rapidly in the investigative process with sources of reliable information

Possessing a variety of texts, current and reliable

UNI

Expanding knowledge in the university and in our work to deliver

Most study material

Without need to go to the library through this consult there's the information we seek.

Access to books that do not lend themselves to home.

Get more information helps the investigative works, book download.

Expansion of knowledge

Can be access large amounts of information available to download for free.

Use of high quality educational resources

Access useful information for both school and in her itself monographic find information, descriptions and definitions.

New knowledge of search; Spirit of researcher; Information Handling

None because so far I have not found anything good, may eventually add more information and would benefit me more.

Some of the investigations and topics of interest to help my career

 Strengthening of my knowledge.

I can do research to enrich my knowledge and people interested in such themes, this information to other generations by facilitating its location.

Information validated

UNAN-MANAGUA

It is a guide on different topics in one location

It is very important for the accessibility of information scientifically recognized journals.

More information and new knowledge to our academic activities.

Some of the information provided has acquired knowledge that so far do not know why it's always good to be hand in hand with technology.

In obtaining updated information

The information is unaudited and there is danger that false information.

Major upgrading of knowledge and Transcript
Full text information.
I really like because it is reliable information that helps us solve problems of information
It is a method to do research and consulting topics of interest.

Teachers:

Considers that PERii Databases are essential for the development of academic pensum?

Table No. 30 Considers that PERII Databases are essential for the development of academic pensum?

		AS TEACHERS	
		frequency	Percentage
Valid	YES	141	92
	NO	5	3
	NR	7	5
	Total	153	100

Graphic No. 21   Considers that PERii Databases are essential for the development of academic pensum?
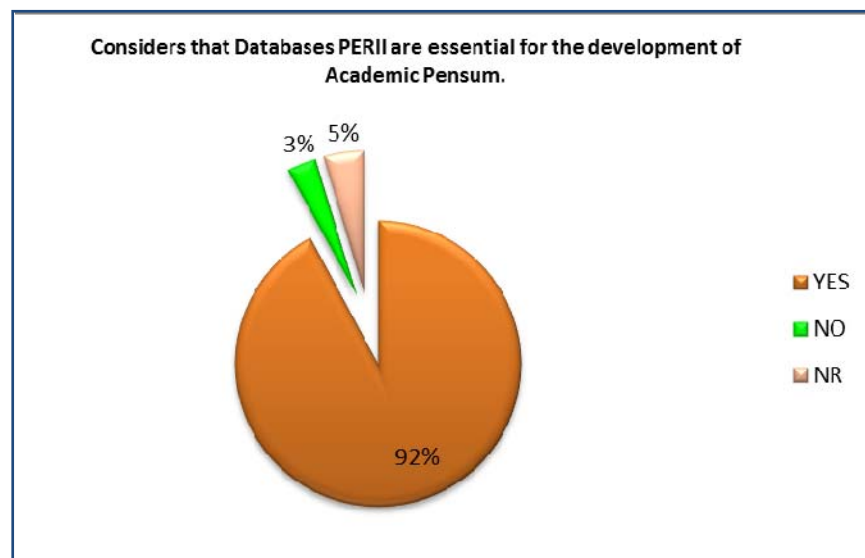
The 92% of teachers responded that if they are essential for the development of Academic Pensum 5% considered that, 3% did not respond.

Tic's:

Support offered by the Library Tic's to facilitate the use of databases PERII:

UCA:

Administration of the network, Website.
Technical support
Training for students, professors, teachers, librarians in the use of the Database.

UNI:

Management and administration in the access to the network, web publishing activities of the university.

UNAN-LEON:

Training, technical support

UCATSE:

Make available databases and web counter.

EIAG:

We currently training on the use of databases for teachers from the desktop to access the databases, the students do in the library or their own laptops and the library, as well as the reintegration of APA references in Word documents.

BICU:

Support for machines, Internet access to laboratories, computer equipment means access to databases.

URACCAN:

Giving to PC maintenance, cabling and security to computers that are installed on library service both to students and to serve the library.

7. **LIMITATIONS:**

Results of interviews with directors, surveys Librarians, Teachers and Students, were identified and are the most important limitations:

Graphic No. 22 Limitations by director's
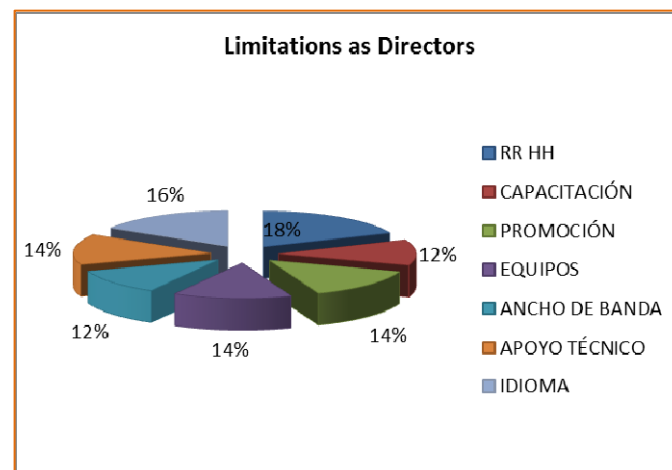
In accordance with the graph No. 21, 18% of the Directors believe that the lack of human resources, 16% language, 14% technical support, promotion and equipment, 12% Training, bandwidth and equipment.

Graphic No. 23 Limitations by Teachers
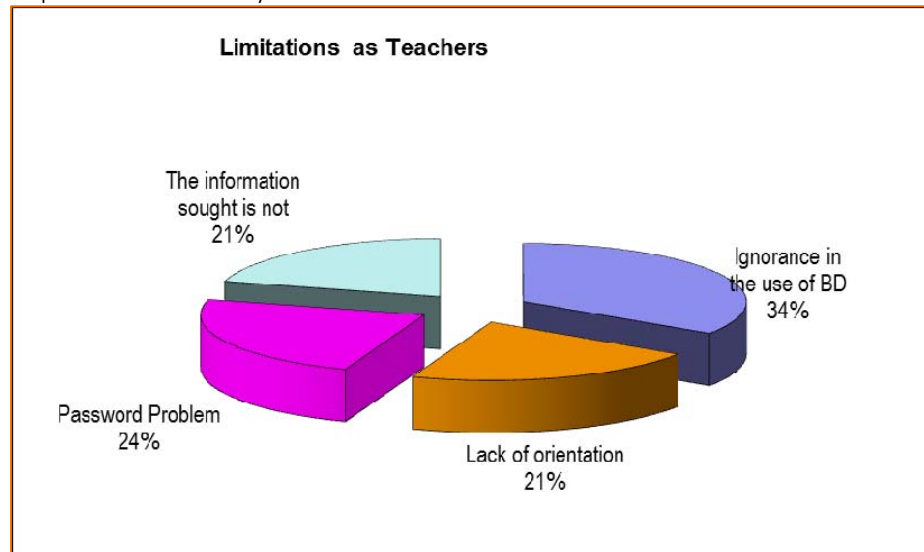
A 34% of teachers have limitations by ignorance on the use of databases, 24% have problems with passwords, and 21% are looking for the information not found and lack of guidance.

8. **RECOMMENDATIONS OF THE LIBRARY @ S TO IMPROVE SERVICES IN THE USE OF DATABASES:**

   BICU
   More training
   More technical support to the network

   URACCAN
   - Equipment with more computers;
   - That there is a replica of the workshops where all can participate;
   - That we increase the number of quotas for imparting training PERii.
   - Increased training for all staff;
   - Increased presence of project staff
   - Bandwidth.
   - Media and materials for disseminate.
   - What the pages could be in Spanish because that is the demand of students.
   - What the training with more frequent users.
   - It is full text in Spanish
   - Hiring a computer to perform all activities of promotion and dissemination of these data bases, as are limitations to advance and get a positive impact on the use and management of these data bases on users.
   - That continually trains library staff to provide better service and have tools and abilities to bring knowledge to the users efficiently.
   - Adequate space to provide a quality service to users.

UNI

- Always keep the quality and if possible improve existing databases.
- Making a selection optimum of databases, better quality and not quantity, users suggest databases that can access the various engineering books.

- Coordination the library teachers to guide these searches topics imparted in class, guide students to explore the information resources for staff self.
- Conducting regular meetings of all the universities included in the project as this would allow us to have exchange of ideas to help us to improve both service and in providing outreach ideas, use and evaluation of databases PERii.
- Exchange of knowledge in Central America PERii teams from each university as this would allow obtaining knowledge of the different techniques and processes used in both work methodology.
- Software focused on obtaining statistics on the use and management of databases used.

EIAG

- Provide more training for staff in support of libraries because this way the transmission of knowledge in the use and management of databases will be more fluid to the students and end users.

- They should also continue to manage to have access to the majority of the texts and theses that are in of databases that are not currently available.

UCATSE

- Expansion of bandwidth,
- Training for teachers and students
- License for network access from anywhere
- Revisit the training given to new teachers is

UNAN MANAGUA

- Designing a method so that more people know about these data bases
- The extension of the research room in the regional centers and research center is supported equally the Library.
- Manage more bandwidth;
- Manage more infrastructure, a single room for the training;
- More teams

UCA

- More active training library staff, teachers and students in the use and management of of databases.
- We have the database in Spanish, since language is the main problem for use.

UNA

- All staff receives training on Service to help the user PERII researcher.
- Training in the use of databases for students and teachers
- Regulate the citations in the thesis document of databases PERii.
- Making these resources fairs where participating universities, that it projects and that all libraries including personnel involved ... to suggest databases, use and demonstrate good use.
- Coordination with Directorate of Teaching and Career Coordinators in key subjects to incorporate the use of these resources.

- Availability of room for active users only PERii research, postgraduate students, teachers, consultants, researchers, graduate students, students of IV year.
- Organize in practical modules PERII room to search for information by students and instructors in library information managers
- That the evaluating documentaries also partake of all the workshops to give good service, and not only refer to the archive.
- What all staff receive training information service, to better guide users in the use and management of these data bases

UNAN LEON

- Provision of additional equipment to better serve
- What teachers require the use of the Bases etc.
- Training in the use and management of BD PERii;
- Need an integrated searching
- We need Spanish-language Bases
- Give more publicity
- Paste the posters in the classroom to get them excited more students and teachers
- The integration of a generalized form which integrate all of databases acquired.
- Continue to disseminate these rules in the student population;

6.4 Development of competencies in University Libraries, Statistics Training for Researchers, Teachers and Students:

By 2010 the libraries of universities that make up the Consortium PERII-Nicaragua, training and promotion strategies implemented to ensure that the results were a success this year has allowed the appropriation of knowledge by academic authorities, training and competence development in the use of new information technologies in a 100% for Librarians and Tic's, Investigators and journal editors concerning the Use and Resource Management Scientific and Technical information contained in the Databases PERII. This permitted the strengthening and modernization of technology for information services of each library, PERII acquisition of equipment and bandwidth, in order to provide technical conditions at the disposal of various types of users, multiplication of knowledge. According to plans, programs and statistics consultancy delivered to these trainings universities have been directed at approximately 90% especially to librarians, teachers and researchers, in 2010.

The training activities organized by the coordination of PERII, executed with the participation of universities in 2010 are detailed in Section No. IV of this study. At this point is information generated from surveys and actions in each university according to the information provided by some.

Referring to whether librarians have been trained on the Management and Use of Data Bases PERii:

Table No. 31 If, librarians have been trainers

AS LIBRARIANS		Frecuencia	Porcentaje
Válidos	Yes	31	78
	No	7	17
	NR	2	5
	Total	40	100

Graphic No. 24 If, librarians have been trainers
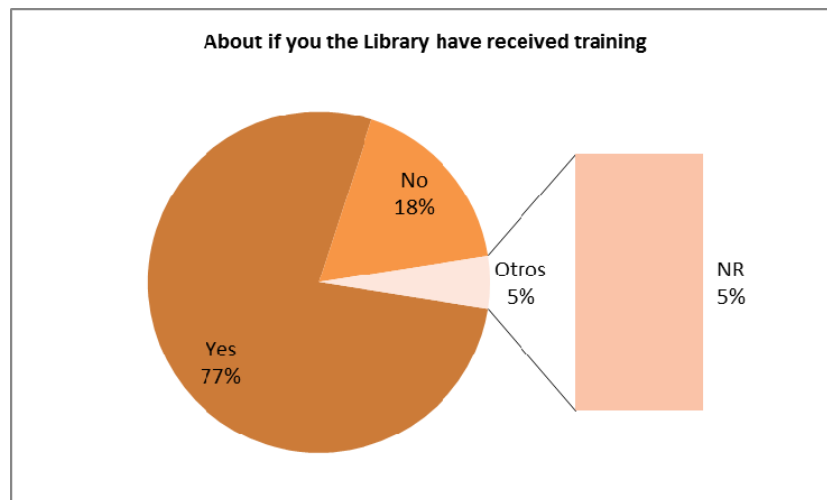
The 77% say YES, have received training in the Management and Use of Data Bases PERII, 18% said no; 5% other and did not respond..

Training received by the Librarians of the Universities:

- Bandwidth of Administration
- informational Alfbetizacion
- The bibliometric study
- Search strategies, Monitoring and Evaluation Database
- HINARI/OARE,
- Selecting Electronic Resources
- ALFIN Workshop
- Workshop on Monitoring and evaluating the use of Electronic Resources (Meeru)
- Use and exploitation of electronic resources
- Use and management of databases

Thematic they would like to reinforce and update knowledge:

- Information Literacy
- Customer services;
- Bibliographic Database;
- Using statistics for each base, and manage
- Virtual courses, portals etc.
- Develop abilities and skills of searches of electronic resources;
- Bibliometric Study
- Computer tools for more efficient use of these
- English
- Library management;
- Blog information management, virtual libraries, virtual sites
- Management and web page designs,
- MERU,
- Research methodology;
- Computing resources such as media
- Selection of electronic information resources
- Workshop on ICT's;
- Humanities Issues
- Effective and ethical use of technology

Referring to whether Tic's have been trained:

Table No. 32 About whether Tic's have been trained

		frequency	Percentage
Válidos	Yes	11	84
	No	1	8
	NR	1	8
Perdidos	Total	13	100

Graphic No. 25 About whether ICT's have been trained
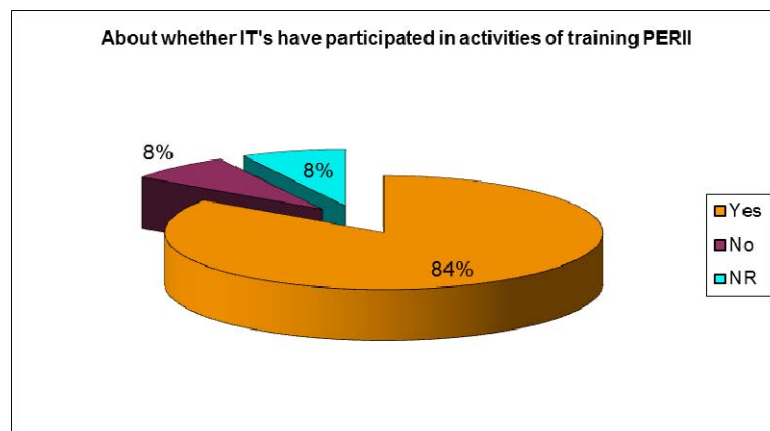
According to Table No. 32 and graphics No. 25, the 84% say they have been trained to know PERII working tools and information technologies, 8% said no, 8% did not respond.

About the training received by the Tic's:

- Database Training
- Upgrade the resources offered by the CENIDA Online
- We have worked on improving the performance of databases through Meeru
- Selection, use and management of electronic resources
- Monitoring and evaluation of electronic resources Meeru
- Information literacy workshops
- Bibliometric Management,
- Evaluation of databases,
- Journal Management
- Course Administration and LAN network design
- Resource management workshop in network security
- Of bandwidth management

As have contributed these trainings to improve the bandwidth of the universities:

- Due to technical requirements of connecting the university to hire a service with "Browse" 16 MG

- I do not consider that there are improvements to the bandwidth

- We have provided new tools for management and administration in a manner that ensures a better the information service.

- Organization and control of bandwidth allocated for access to BD

- Changed the structure of the network allowing for greater control and better management.

- The more users access databases is necessary to have more bandwidth for everyone to navigate the database that everyone needs to get its information.

- It was excellent because after the training PERii, we have implemented some changes in the structure that allows us to improve the bandwidth and explain our authorities based on the need to implement some changes and most importantly create usage policies.

- Principally adopting the tools and knowledge that we have given, logically apply to our institutional reality we have achieved thus provide an easier access for users.

- Our University has 3 MB x seconds but there is no adequate administration still available.

- Much because through the training already being created for bandwidth allocation

- We have implemented a 80% distribution networks and security we do not have problems in navigation and Internet speed.

As to whether the Library has provided training in the Use and Management of Databases to teachers PERii:

Graphic No. 26 About whether teachers have received training.
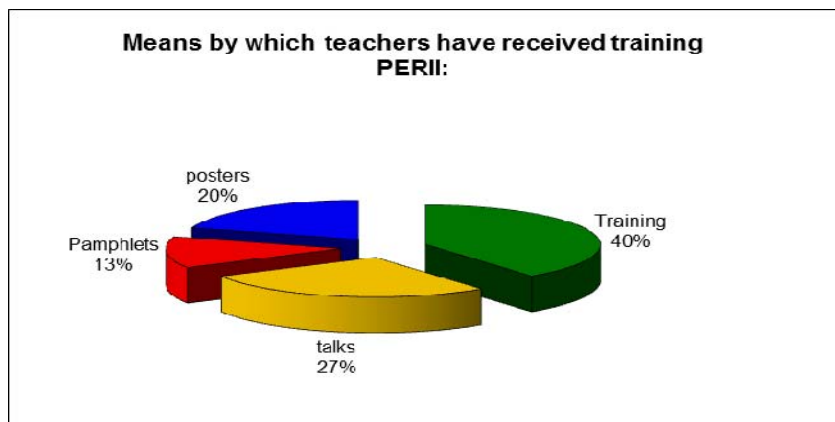
According to the graph No. 26, 40% say they have been trained to know the use and management of databases PERii through training workshops, 27% through talks, 20% posters, 13 % through pamphlets.

As teachers guide the students for the Use and Management of Databases PERII?:

Table No. 33 Through Middle Eastern Teachers who use of the databases PERII

.

Means of orientation	Yes	No	NR	Total Surveyed
Investigation	96	56	1	153
Works	63	88	2	153
Entertainment	151	2		153
Self-Study	60	91	2	153

Graphic No. 27 through Middle Eastern Teachers who use of the databases PERII
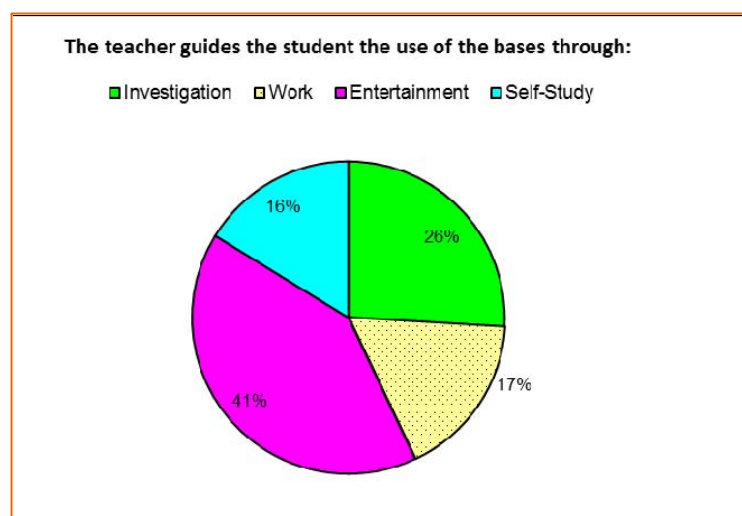
According to the graph No. 27, the 41% stated that orients the student to conduct research; 28% for self study; 29% for work, the 2% entertainment.

Orients students to the use of the BD PERii, mentions:

- Development of investigative perspectives
- For magazines
- Case Information
  Practical classes to search for information classes
- Only to graduate, undergraduate and graduate
  It was not even geared to students.
- Expansion of scientific
- Clarification of technical
- To work on the master
- Not yet, because I believe the student has not been trained yet,
  Information is in English.
- General Information for Internet use
- Further Reading
- Not because they are difficult to access

Recommendations / Suggestions for Teachers

TEACHER-INVESTIGATORS

UNIVERSITY	RECOMMENDATIONS AND / OR SUGGESTIONS
UNI	-Encourage teachers through the use of such an important resource. -Find the way that access to all databases that do not expire and there is no restriction to download files -More workshops with teachers -Select best databases -Make it more accessible to students -Perform a broader training and a course online for more effective management of these -Access to computers connected wirelessly -Give more publicity and more information the student to achieve assimilate and stay in touch -Find topics that they can be adapted to more easily apply to our reality that is American themed search. -Information science and technology, Tic's information systems, systems engineering PERii consider the project to enable the systems approach involving all system elements involved in the success of PERII it is not enough to provide a new technology and training will be necessary to involve other elements of the same system to succeed Use the website of all faculty to generate information .
UNAN-MANAGUA	Make training days for schools That training for all teachers if exception These programs must be accessible to the entire university community continue offering information to teachers and students of the UNAN-Managua Train consistently and update this program and teaching staff Allow teachers can access from their homes, and the ability to speed on the UNAN-Managua is very slow. We need more personal approach to training Organize more workshops with teachers and students of the University

UCATSE

Greater involvement of the subjects for scientific information.
Improve access to media.
Improve quality or capacity of the server for better access.
Being able to publish reports.
Counseling
Availability
Add pages or sites with databases of Veterinary Medicine
Put him in writing in the area of computer address label of
More trainings were made for the use and management of databases and optimizes the tool.
You could make a guide for users of databases and distributed in the different member universities
It would be good to facilitate a code to each facility that has the PERII database so they can give to their students and alumni so they can access the database outside of universities
Train staff on a regular basis as it is always entering new human resources know the program

UCA

Improve the UCA network
Perhaps more information through the classroom
Containing information on Latin America in Spanish scientific papers and laws
Could improve the path, faster
That full-time teachers are allowed to access from home
Expand PERII report
It would be appropriate to get more databases in Castilian

UNAN-LEON

They are required to attend teacher workshops on the use of databases.
Include access to other magazines as Sercuse Direct, Elsevier, Lippincott, Williams and Williams, Informs.
Adaptation is necessary from the Castilian database.
Universities by a brief explanation of how
That a personalized disclosure of these databases
Improve disclosure of the Program to provide training to teachers and students.
They do not stop improving and get our hands on the best information to help teacher training and student
Small training sessions with accurate passwords and notify you when there are changes
Make presentations on use and management of these services to students and teachers
Provide training for better management of databases
We can access our computers at home

BICU

This type of survey should be done in class time, coordinating with the library, not the best time to survey teachers, students trained.
Provide more training to high school students especially the students in fourth and fifth year and the new revenue coming into the university for promotions.
From the perspective of the race suggest adding more information about the technology and some bibliographies related to computing.
More databases in Spanish.
I insist on the need to promote these resources because they are good and necessary.
Subscribe to more databases with economic, social and cultural
Promote more databases at all levels

EIAG

Maybe try to get other data base queries in Spanish
To improve the internal bandwidth to extend the above problems
Language
Make a little extra training to make them more or less homogeneous groups in terms of technological
Possibly more systematic use to influence
Promotes maximum use of these databases
They become regular training to teachers to guide students properly
Each university should propose new databases according to the careers that develops because of our limited research we can find to support our own. In other words, the databases are not consistent with our career profile

UNA	Follow up on training to make better use of these databases.
	Consider having the physical version of the relevant journals for each school
	To allow teachers to access the full text of scientific articles.
	Major update on the new resources being added
	Databases incorporate economic category
	Guide for database self-learning
	To keep the program for future generations of today and
	They must give more diffusion few people know of these databases and how to use
	We need databases (Access) primarily Journals Soil, Environment which are of great importance
	That will eventually be adding more journals to the current list of PERII
URACCAN	That search engines or filters are not as complex for the user
	Greater disclosure among teachers to motivate students
	If you have access to the journals that we have on campus that give more detailed guidance on the use of databases can help by training a computer to be later reproduced with teachers and / or students
	Submit as many full-text documents in Spanish many students or teachers cannot access current information for problems with language, it is true that there are no translators but supports the idea of the text and original content often changes
	Further promote the existence of these databases with teachers, coordinate with the Area Coordinators for the bibliographies recommend PERii databases and so the students get to know people PERII project managers, network libraries Nicaragua and Board of libraries should develop proposals for computer purchases for libraries that do not have equipment
	Having more connections to databases in Spanish

As the training benefited?

Library Director's:

- In acquiring new knowledge and improve our skills and Tic´s, the bandwidth.
- The training received from PERii, has generated informational competences have contributed to the process of transformation of actions of the librarian, to lead new functions and tasks: A new way to manage and promote electronic information, a trainer and communicator role of the library, among other tasks before PERii, did not develop.
- Skills for search and retrieval of information.
- They have raised the profile of the Library. The librarians have learned the use of these resources (ownership of) the use and management as a tool.
- It has strengthened Human Resource technology related topic.
- To have a specialized staff with knowledge of how to find scientific information in various databases and thus provide quality services to users. People who work in Tic´s are also staff who have been trained and put into practice the knowledge received.
- One of the major benefits has been in relation to strategies for searching for information, knowledge and evaluation criteria of the databases subscribed. Extend
- Increased abilities in the use and access to scientific databases, ability to educate the university community in the use of databases. Have new information tools. Management of new services.
- Library staff has enriched knowledge of innovative thematic

LIBRARIANS:
- Have been improved library services, we are covering the demand of users for information needs.
- In bringing the project is running after a few electronic resources we have access to computers and a server.
- Increased availability of electronic resources

- Access to databases, ensuring all year to date and peer information.
- The information was not found in the books is complemented in the databases.
- These databases have come to meet the information needs of both teachers and students.
- Multidisciplinary information.
- Absorbs a little inadequate literature.
- Economic and intellectual benefits.
- The benefit for the library in 2010 was that it was a server with its own monitor and keyboard and all, the cable box to install and a switch.
- Acquisition of 5 teams.
- Staff training
- More researchers come here to investigate the databases PERii.
- Technology Resourcing.
- Training for the use and management of BD.
- Improved bandwidth on the Web.
- The new server was received but has had trouble,

Summary statistics of the training activities executed by the libraries that make up the consortium PERii, 2010.

STATISTICS USERS TRAINED IN THE URACCAN PERII 2010

Table No. 34 Statistics of URACCAN trained users in 2010

.

URACCAN TRAINING STATISTICS - 2010				
PRECINCT	**TEACHERS**	**STUDENTS**	**INVESTIGATOR**	**TOTAL**
PRECINCT BILWI	80			80
PRECINCT BLUEFIELDS	8	86	4	100
PRECINCT LAS MINAS		341		341
Total				521

STATISTICS OF USERS TRAINED IN THE BICU PERII.

Table No. 35 Statistics of Users trained by BICU 2010.

TRAINING STATISTICS BICU - 2010			
SYSTEM ENGINEERING OF STUDENTS	STUDENTS OF THE SCHOOL OF MEDICINE	STUDENTS OF MARINE BIOLOGY AND ECOLOGY	ENGLISH TEACHERS MAESTRANTES
31	32	31	30
Inductive talks about the online information available to 14 groups of students per semester in coordination with responsible BICU Spanish area			

STATISTICS OF USERS TRAINED IN PERII, IN THE UNIVERSITY CENTRAL-UCA

Table No. 36 Training Statistics of the UCA. 2010.

TRAINING STATISTICS UCA – 2010	
MASTERS	**TOTAL**
Specialization in Penal Law	17
Specialization in Economic Law	11
Specialization in Marketing Management	25
Masters in Economics with specialization in Finance	23
Teachers of Psychology and Human Development	7
Specialization in Economic Law	16
Masters in of Human Talent Management	14
Specialization in Procedural Law	14
Master of Business Administration and Management	20
Master of Hygiene and Occupational Safety	7
Master of Territorial Development	15
Doctorate in Law	22
Teachers the Doctorate	7
FACULTIES	
Law	7
Humanities	8
Engineering Systems	77
TEACHERS	60
STUDENTS	
Induction talks to students of different careers	250
TOTAL	600

STATISTICS OF USERS TRAINED IN PERII - UNI

Table No.37 Training Statistics - UNI 2010.

TRAINING STATISTICS UNI 2011	
Trained	**Nº**
Scholars	27
Industrial Engineering Students	91
Mechanical Engineering Students	83
Architecture	52
Systems	78
Chemistry	42
Teachers FIQs	14
Total	**387**

STATISTICS OF USERS TRAINED IN PERII IN THE UNAN MANAGUA.

Table No. 38 Training Statistics UNAN-MANAGUA 2010.

Status Control income for

	FREQUENCY	PERCENTAGE
NO SCHOLARSHIP	2	2.7
SCHOLARSHIP INTERNAL	73	97.3
TOTAL	75	100.0

Users trained by faculty UNAN-MGA. 2010

	FREQUENCY	PERCENTAGE
C.C.M.M	3	4.0
F.E.I.	5	6.7
C.C.P.P.	12	16.0
RUCFA	12	16.6
I.P.S	19	25.3
F.H.C.J	24	32.0
TOTAL	75	100.0

USER STATISTICS PERII TRAINED IN THE UNIVERSITY NATIONAL AGRICULTURAL - UNA.

Table No. 39 Training Statistics UNA 2010.

STATISTICAL TRAINING UNA – 2010	
MASTER	TOTAL
Agribusiness and Rural Development	13
Agroecology and Sustainable Development	27
Total	40

The UNA, it was in 2010 the majority of the months in the process of remodeling its installations which limits the process of induction and training.

STATISTICS OF USERS TRAINED IN PERII UNAN-LEON

Table No. 40 Training Statistics UNAN-LEON 2010

STATISTICAL TRAINING UNAN –LEON 2010	
Trained	**Nº**
Teachers and Investigators	237
Postgraduate students	117
Undergraduate Students	1,993
librarians	48
Total	**2,395**

The UNAN-LEON has an excellent plan for training and promotion to 'different levels of users according to specialty, teachers, researchers and graduate and undergraduate students.

UCATSE

1- Sensitization and training workshops for teachers in new income to raise awareness of the use and management of the different databases it has access to the university through PERI project.
2- Induction of the PERII databases to new students.

EIAG

1- Sensitization and training workshops for teachers and researchers
2- Induction of the project databases PERii incoming students.

6.5 Advocacy and outreach strategies at all levels during 2010.

PROMOTIONAL ACTIVITIES:

PERII Libraries Consortium formed by of the CNU universities have strengthened their promotion strategies at all levels in all the universities, for it has designed several promotion materials and activities in a short time allowed to publicize the project and produced the impact expected.

Each of the universities have developed their own strategies, also designed and put online databases from their own Web page's.

PERii

National Agrarian University -UNA

Support of the Directorate of Investigation, Extension and Postgraduate y CENIDA

http://cenida.una.edu.ni/
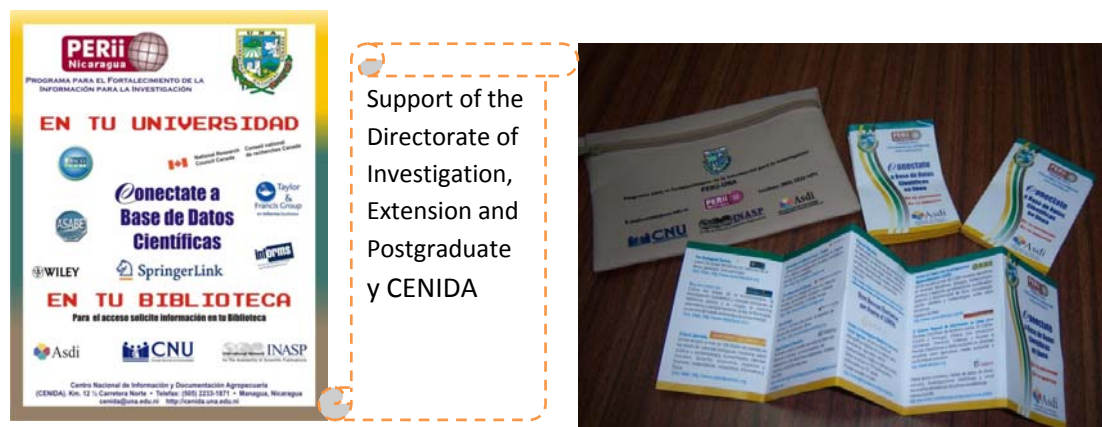
Improving access to databases through the Web site with a subdomain

From the Website of the CNU

TECHNOLOGY FAIR, TIC'S
VII AGRICULTURAL TECHNOLOGY FAIR

V Congress of Agronomic Engineers

AMERICAN UNIVERSITY - UCA

THROUGH THE ITS WEB SITE

http://bjcu.uca.edu.ni/

National University of Engineering - UNI

Through the Library's Web Page
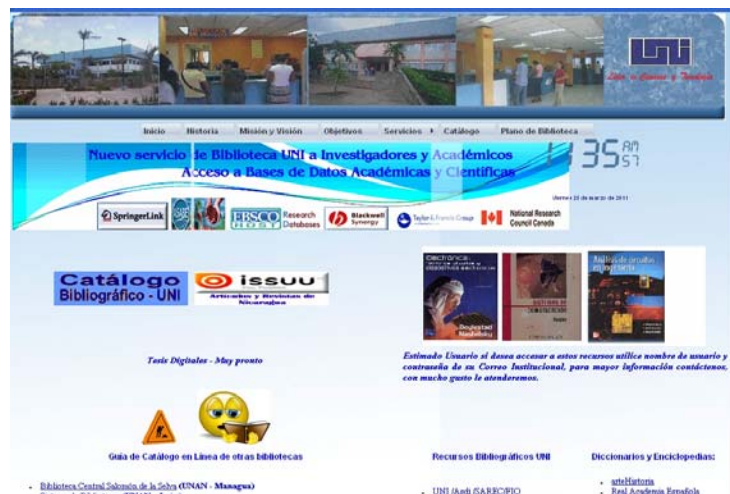
Web portals of the Faculties and Directorates of the

http://www.uol.edu.ni

http://www.norte.uni.edu.ni/

http://www.ies.uni.edu.ni/

https://www.posgrado.uni.edu.ni/

http://www.ftc.uni.edu.ni/

http://www.fec.uni.edu.ni/

NATIONAL AUTONOMOUS UNIVERSITY OF NICARAGUA – UNAN-MANAGUA

Through its Web page

Through the Blackboard

Through Flyers

NATIONAL AUTONOMOUS UNIVERSITY OF NICARAGUA – UNAN-LEON

Through its Web page

INTERACTIVE CD

POSTERS

Pamphlets
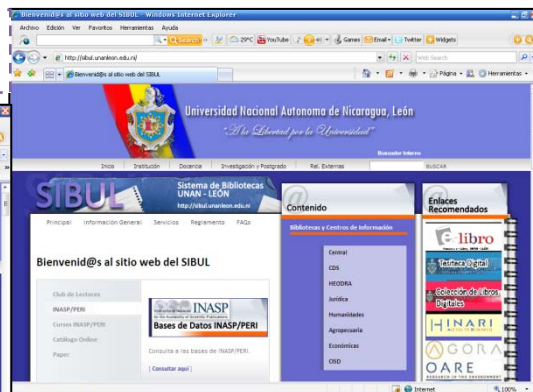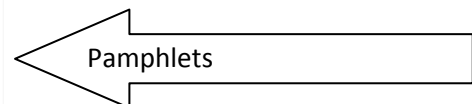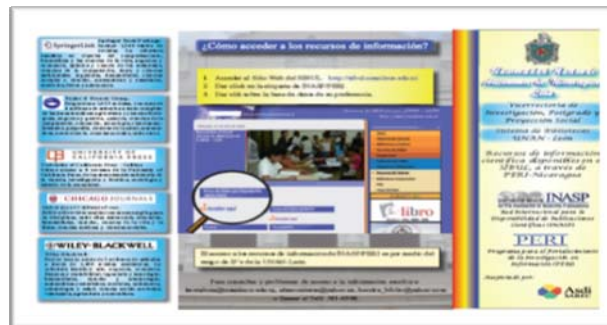
Fair electronic information resources

Participation in conferences, masters and Scientific Development Conference.

URACCAN

Through the Website

INTRANET

Through Blogs

Intranet

Pamphlets
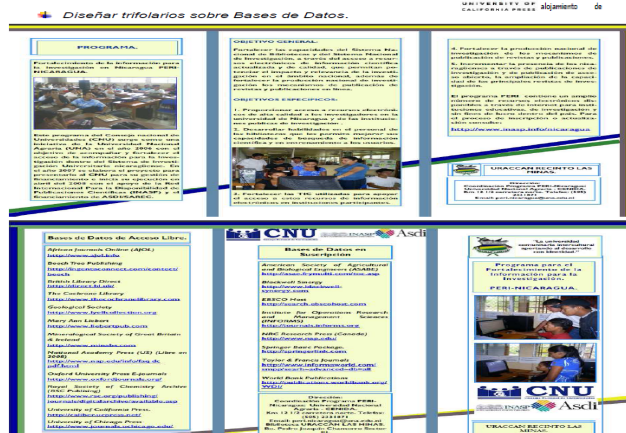
BICU

- Location of banner in main entrance of the library

Login to the website of the university:
http://www.bicu.edu.ni/index.php

Design and distribution of bookmarks.

Participation in Consortium Development Workshop

EIAG

Through its Web page

BANNER

UCATSE

BANNER

Through its Web page

VII.   BIBLIOMETRIC OF THE USE OF THE DATABASES PERII, DURING 2010 IN THE CNU MEMBER UNIVERSITIES.

Bibliometrics Referring to Alan Pritchard (1969) professor of the Polytechnic School of Librarianship (London Northwertern proposed this term as a substitute for the denomination Bibliography statistics, supposed as: **"the application of the statistical and mathematical methods disposed for defining the processes of written communication and the nature and development of scientific disciplines, by counting and analyzing the different facets of the communication".** (PERii/INASP. Taller MEERU Bibliometría. Managua, Nicaragua 2-6 Noviembre 2009).

In 2010, the evaluation of Electronic Resources Databases PERII in Nicaragua through Bibliometric indicators have been permitted to present objective results of great interest to the Consortium PERII to know the statistical impact of universities on the use of most commonly used databases**; The needs related to the promotion and training, for all areas of interest in the community university for the purpose of have a broad view take actions to permitted a university authorities relating to the subscriptions, sustainability of the project at the same time help to improve management.**

This reference was taken first in Nicaragua 2010 statistics provided by the INASP, as well as statistics EBSCO Database, being these the most widely used.

All Universities express the problems of access to statistics from other publishers.

For his part the Libraries have innovated and elaborated the control of visits to pages through Google Statistic, among other.
.

ANALYSIS OF THE USE OF DATABASES EBSCO 2010

Table No. 41 Statistics Using the EBSCO Database, 2010 by University

EBSCO	BICU 2010	URACAN 2010	LEON 2010	UCA 2010	UNA 2010	UNI 2010	UNAN 2010	EIAG 2010	UCATSE 2010	Total
sessions performed	301	487	1690	1994	473	334	955	367	20	6,621
searches performed	1394	3683	7467	16850	2285	7314	11765	15819	186	66,763
summaries downloaded	293	500	1908	1843	401	256	916	323	53	6,493
Articles downloaded (PDF)	295	600	1957	1547	525	390	699	277	53	6,343
Downloaded articles (HTML)	15	42	65	84	59	20	31	15	0	331
Total articles downloaded	**310**	**642**	**2022**	**1631**	**584**	**410**	**730**	**292**	**53**	**6,674**

Graphic No. 28 statistical behavior of University 2010.
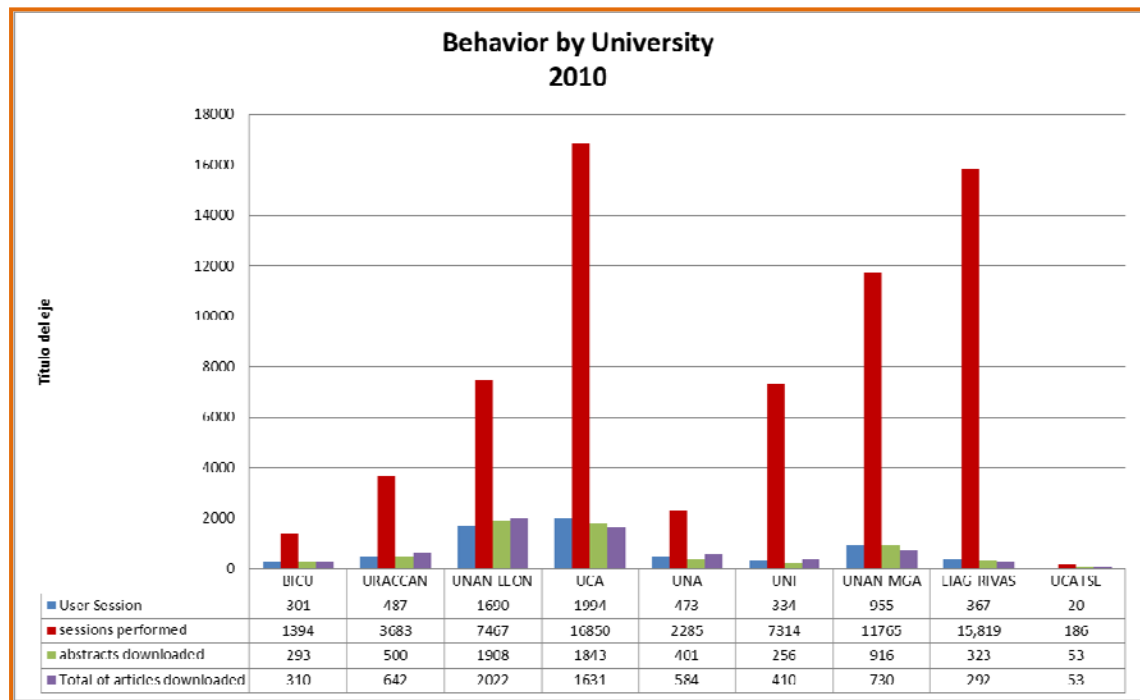
Table No.41 and graph No. 28 we observe the behavior that had the universities in the Use of Databases in 2010, this product is the result of all activities of promotions and training conducted by each.
.

THE ANALYSIS WILL USE STATISTICAL DATA, 2010; THERE IS ALSO THE AVERAGE MONTHLY BAG, MAXIMUM AND MINIMUM

.

Tabla No. 42 Average monthly assessment, maximum, minimum use of the EBSCO database. **See Annex 1**.

EBSCO	BICU	%BICU	URACAN	%URACAN	LEON	%LEON	UCA	%UCA	UNA	%UNA	UNI	%UNI	UNAN-MANAGUA	% UNAN MANAGUA	EIAG	%EIAG	UCATSE	% UCATSE	Total	Promedio mensual	Maximo	Minimo
Sesión de usuarios por separado en el mes	301	4.5%	487	7.4%	1690	25.5%	1994	30.1%	473	7.1%	334	5.0%	955	14.4%	367	5.54%	20	0.3%	6,621	52	1,994	20
Búsquedas realizadas	1394	2.1%	3683	5.5%	7467	11.2%	16850	25.2%	2285	3.4%	7314	11.0%	11765	17.6%	15819	23.69%	186	0.3%	66,763	425	16,850	186
Resúmenes descargados en el mes	293	4.5%	500	7.7%	1908	29.4%	1843	28.4%	401	6.2%	256	3.9%	916	14.1%	323	4.97%	53	0.8%	6,493	51	1,908	53
Articulos descargados (PDF) en el mes	295	4.7%	600	9.5%	1957	30.9%	1547	24.4%	525	8.3%	390	6.1%	699	11.0%	277	4.36%	53	0.8%	6,343	51	1,957	53
Articulos descargados (HTML) en el mes	15	4.5%	42	12.7%	65	19.6%	84	25.4%	59	17.8%	20	6.0%	31	9.4%	15	4.53%	0	0.0%	331	3	84	0
Total de articulos descargados	310	4.6%	642	9.6%	2022	30.3%	1631	24.4%	584	8.8%	410	6.1%	730	10.9%	292	4.57%	53	0.8%	6,674	54	2,022	53

CONSOLIDATED SESSIONS PER EACH OF THE UNIVERSITIES 2010.

Graphic # 29 total sessions performed by University 2010
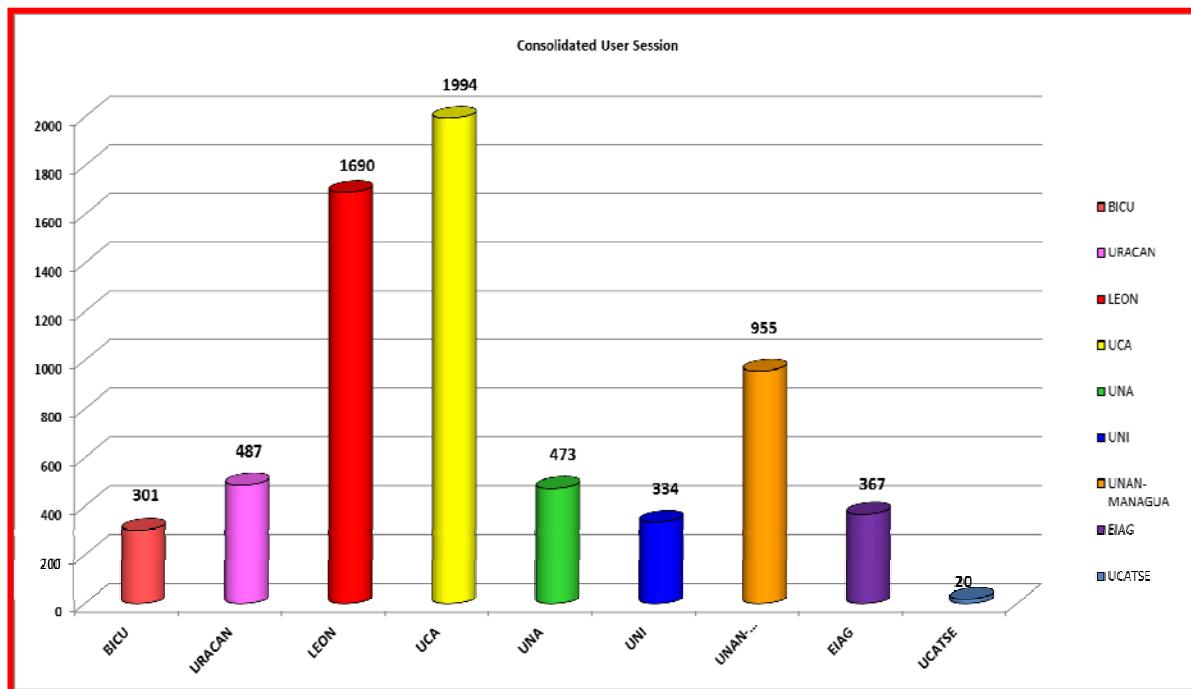
The total numbers of **users for sessions performed** by university during 2010 and in order of importance are the following:

UCA 1994, **UNAN-LEON** 1690; UNAN MANAGUA 955; URACCAN 487, UNA 473; EIAG 367, UNI 334; BICU 301; UCATSE 20.

Universities that perform **more** sessions were **UCA** a 30.1%; **UNAN-LEON 25**%; **UNAN-MANAGUA** 14.4% URACCAN 7.5% y UNA con 7%.

Those who performed **fewer** sessions were **EIAG** a 5.54%; **UNI** 5.0%; **BICU** 4.5% y **UCATSE** 0.3%.

THIS DEMONSTRATES THE PROMOTION AND TRAINING ACTIVITIES AMONG THE UNIVERSITIES MADE BY ITS USERS MOSTLY HAS BEEN ORIENTED TEACHERS AND INVESTIGATORS. **THE STATISTICS HAVE VARIED IN RELATION TO BIBLIOMETRIC 2010.**

CONSOLIDATED OF SEARCHES FOR UNIVERSITIES IN 2010.

Graphic No. 30 total of searches performed by University 2010.
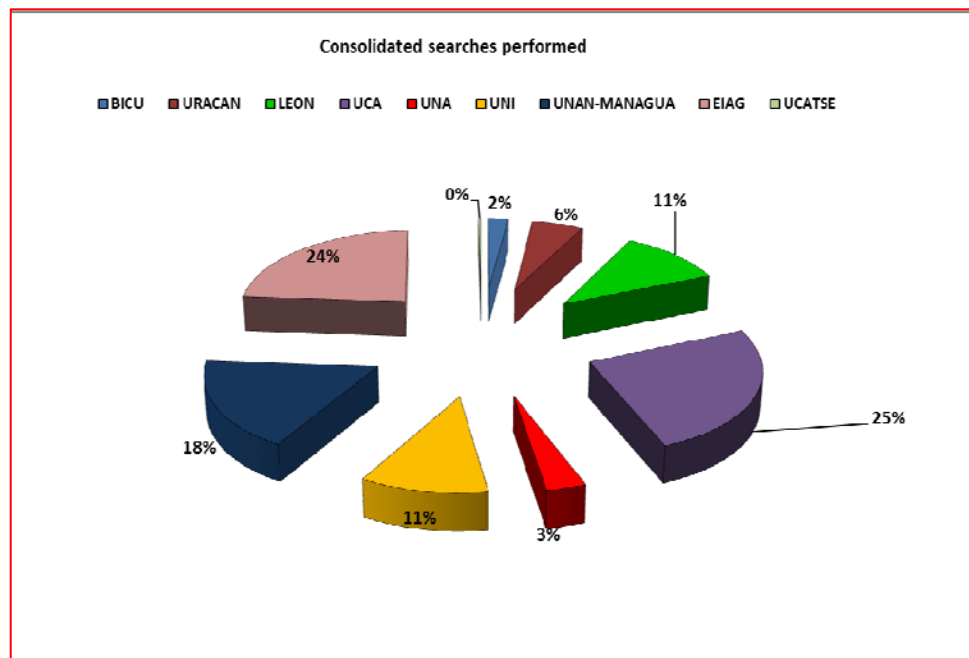
The searches performed on the database EBSCO for each one of the Universities. Were highlighted by the order the following: **UCA** a 25%**; EIAG** with 24%; **UNAN-MGA**., 18%; UNAN-LEON 11%; UNI 11%; URACCAN 6%; UNA 3%, BICU 2% y UCATSE 0%.

Las Universidades que menos sus usuarios realizaron búsquedas son: UNA 3%; BICU 2% Y UCATSE con 0%.

CONSOLIDATED ABSTRACTS DOWNLOADED BY UNIVERSITIES FOR 2010.

Graphic No. 31 Total of abstracts downloaded by University.
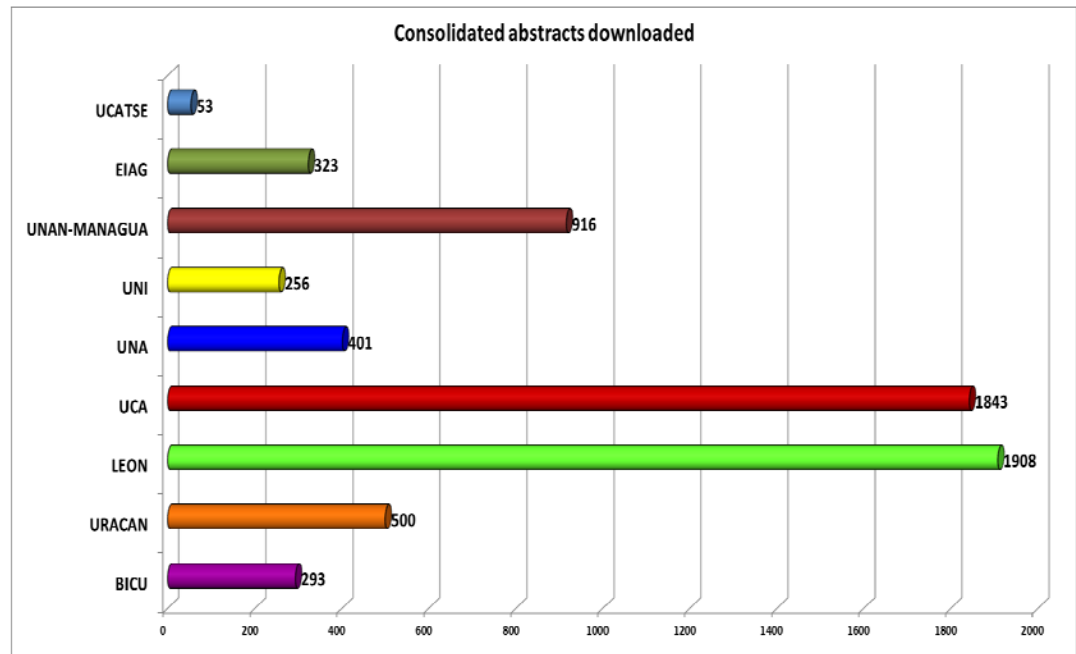
Total Abstract downloads made during the 2010 by each university. In order of importance are as follows: **UNAN-LEON** with 1,908; **UCA** 1,843; **UNAN-MANAGUA** 916; **URACCAN** 500; **UNA** 401; **EIAG** 323; **BICU** 293; **UNI** 256 and **UCATSE** 53.

Graphic No. 32% Total Abstracts downloaded.
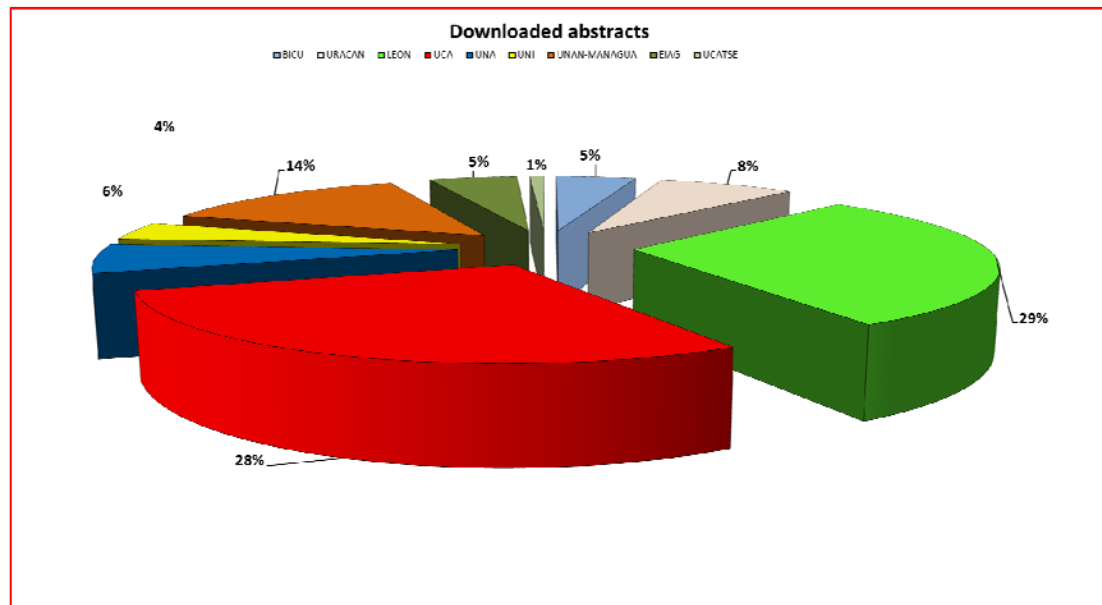
According to the graph No. 32, you look at the performance of the discharge summaries for each university.

The 28% of abstracts downloaded corresponds to the **UCA**; 29% **UNAN-LEON;** 14% **UNAN-MANAGUA**; 8% **URACCAN**; 6% **UNA**; 5% **BICU**; 5% **EIAG**; 4% **UNI** y 1% **UCATSE.**

CONSOLIDATED TOTAL OF ARTICLES DOWNLOADED BY UNIVERSITY 2010.

Graphic No.33 Total articles downloaded.
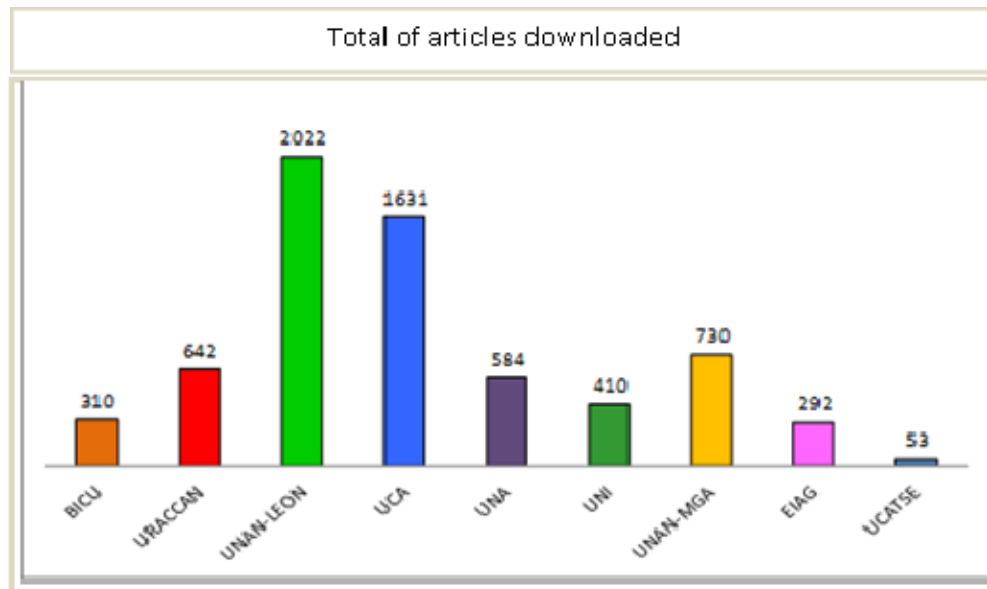
The total of articles downloaded performed during the 2010 by each university. By order
of importance are as follows: **UNAN-LEON** con 2022; **UCA** 1,631; **UNAN-MANAGUA** 730; **URACCAN** 642; **UNA** 584; **UNI** 410; **BICU** 310; **EIAG** 292 and **UCATSE** 53.

Graphic No. 34% Total of articles downloaded
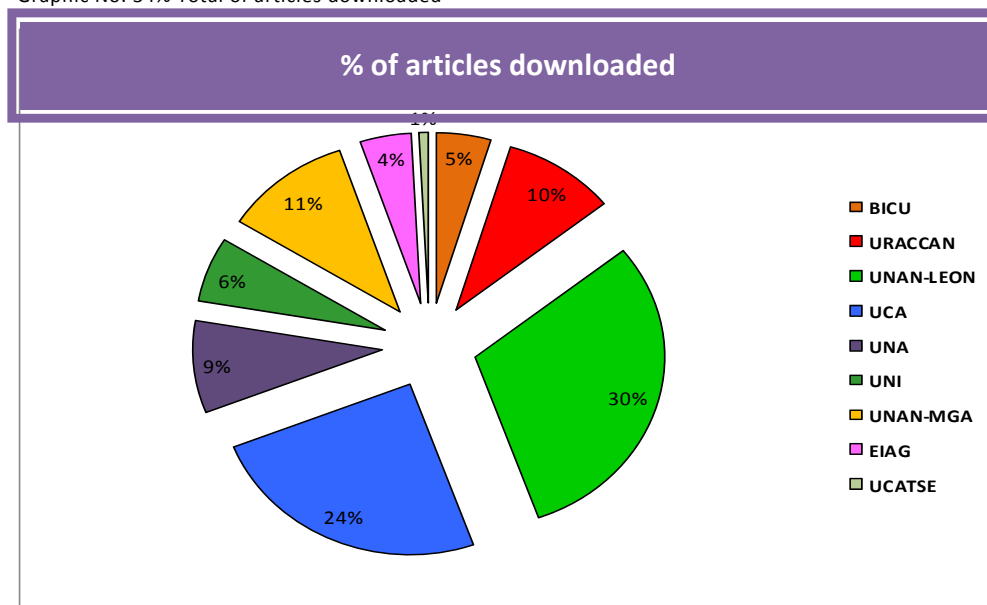
In the graph No. 34, can observe the articles downloaded by each university in the following order: **UNAN-LEON** a 30%; **UCA** with 24%; **UNAN-MGA**. 11%; URACCAN 10%; UNA 9%; UNI 6%; BICU 5%; EIAG 4% y UCATSE 1%.

The universities the least downloaded are**: EIAG with 4% and UCATSE a 2%.**

CONSOLIDATED TOTAL ARTICLES DOWNLOADS AND PDF:

Graphic No. 35 Consolidated total of articles and PDF downloads
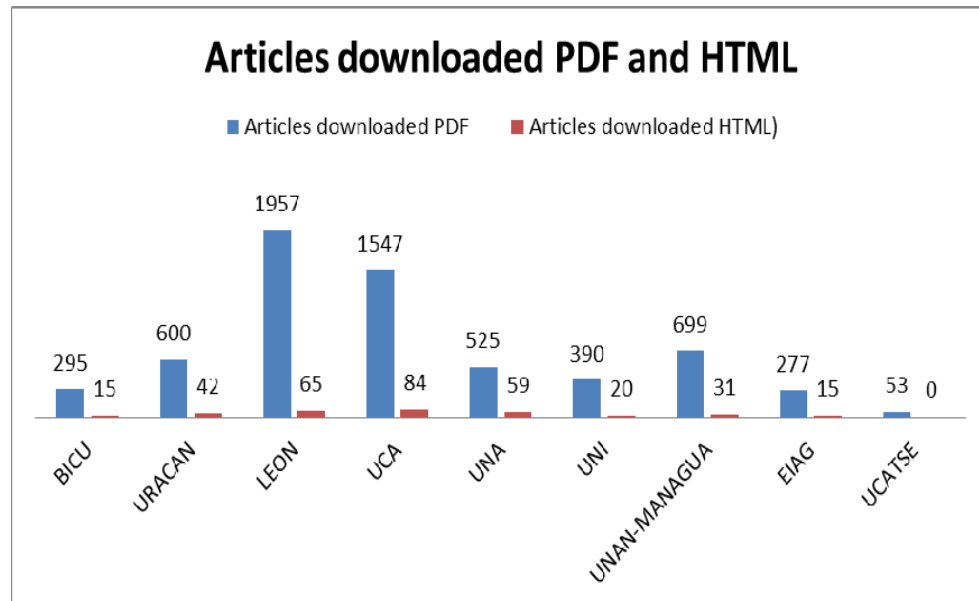
In the total of PDF downloads performed by the University in 2010, in order of importance are:
UNAN--LEON con 1957; **UCA** 1547; **UNAN-MANAGUA** 699; **URACCAN** 600; UNA 525; UNI 390; BICU 295; EIAG 277 y UCATSE con 53.

The total numbers of articles downloaded in HTML format performed by the order of importance are:
UCA con 84; **UNAN-LEON 65**; **UNA** 59; **URACCAN 42**; UNAN-MGA. 31; BICU 15; EIAG 15 y UCATSE con 0.

Graphic No. 36 % Consolidated total of articles Html and PDF downloads
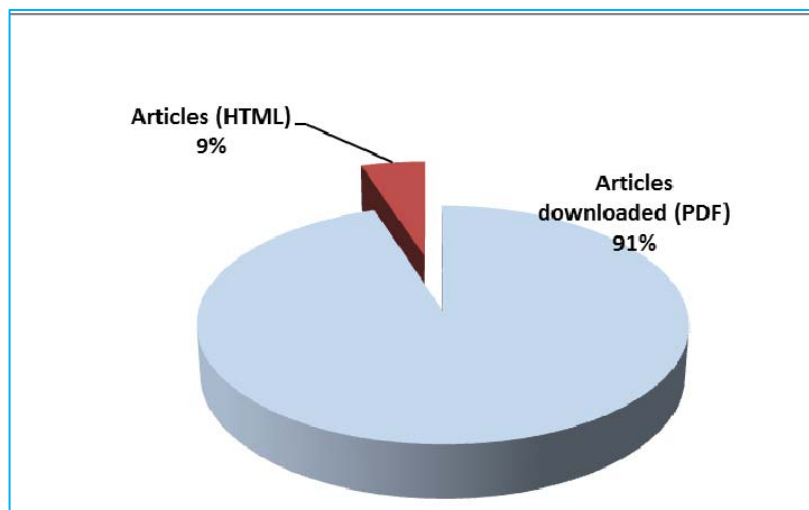
According to graphic No. 36, a 91% of articles downloaded were in PDF format, this indicates that more information is downloaded in this format. Only 9% in HTML format.

ANALYSIS BEHAVIOR AND / OR USE AVERAGE MONTHLY, MAXIMUM, MINIMUM

To perform the analysis in relation to potential users of the universities was taken as reference cover by universities recorded in the CNU website.

Table No. 44. Analysis, evaluation, average monthly, maximum and minimum.

	BICU	URACCAN	UNAN-LEON	UCA	UNA	UNI	UNAN-MGA	EIAG	UCATSE	Total	monthly Average	Maximum	Minimum
Potential users	5,905	3,884	15,900	8,237	3,461	11,167	27,542	1,000	1,089	78,185			
sessions performed by users	301	487	1690	1994	473	334	955	367	20	6,621	52	1,994	20
Searches performed	1394	3683	7467	16850	2285	7314	11765	15819	186	66,763	425	16,850	186
Abstract Downloads	293	500	1908	1843	401	256	916	323	53	6,493	51	1,908	53
Articles downloaded (PDF)	295	600	1957	1547	525	390	699	277	53	6,343	51	1,957	53
Articles downloaded (HTML)	15	42	65	84	59	20	31	15	0	331	3	84	0
Grand total of articles downloaded	310	642	2022	1631	584	410	730	292	53	6,674	53	2,022	53

As average value were performed 52 sessions monthly, 425 monthly searches and downloaded a total of 51 monthly articles between PDF and HTML for all the university for 12 months.

According to data provided by EBSCO sticking the **UCA** perform more sessions and secondly is the **UNAN-LEON**.

For searches performed by the order are: **UCA**, **EIAG**, UNAN-Managua, UNAN-LEON, UNI, URACCAN, UNA, BICU and UCATSE who performed fewer downloads.

For downloads Abstracts unloaded highlights: **UNAN-LEON**, **UCA**.

For downloads of articles (PDF y HML): **UNAN-LEON**, **UCA**.

The university that had a usage behavior lower was UCATSE.

IN RELATION TO POTENTIAL USERS FOR EACH UNIVERSITY:

IN RELATION TO THE SEARCHES.

205% of potential users (8.237) of the UCA were searched

158% of Potential Users (1000) the EIAG were searched

95% of Potential Users (3884) of URACCAN were searched

66% of Potential Users (3461) the UNA searched

65% potential users (11 167) of the UNI searched

47% potential users (15.900) of the UNAN-LEON searched

43% of potential users (27 542) UNAN-MANAGUA searched.

24% of Potential Users (5905) the BICU searched

17% of Potential Users (1089) for UCATSE searched.

Of all the student population (77.185) of all Universities 16% of users searched

IN RELATION TO THE ARTICLES DOWNLOADS:

20% of potential users) (8.237) of the UCA download scientific articles.

29% of Potential Users (1000) LA EIAG downloads scientific articles.

17% of Potential Users (3461) UNA downloads of scientific articles

17% of Potential Users (3,884) of URACCAN downloads of scientific articles.

13% of Potential Users (15,900) of the UNAN-LEON downloads of scientific articles.

5% of Potential Users (5,905) of BICU downloads of scientific articles.

5% of Potential Users (1089) of UCATSE downloads of scientific articles.

4% of Potential Users (11167) of the UNI downloads of scientific articles.

3% of Potential Users (27542) of the UNAN-MGA downloads of scientific articles.

In relation to the total amount of potential users in all the universities, only 25% underwent article downloads.

IN RELATION TO THE COST BENEFIT:

Table No. 43, Cost Benefit Analysis

IN RELATION TO POTENTIAL USERS			
Cost per visit	Amount invested / Quantity Consultation	$ 1.20	77,829.00 Potential Users
Cost per potential user	Amount invested / User Number	$ 1.02	
Cost per item	Amount invested / Articles downloaded	$ 12	
Cost Database	Amount invested / Number Data Base	$ 79,969.00	
Search satisfied	Number of search / Total items downloaded	9.9966	

DATA BASES MOST UTILIZED ACCORDING TO SURVEYS:

ACCORDING TO DIRECTORS THE DATABASES MORE USED ARE:
1. EBSCO
2. SPRINGERLINK
3. ASABE
4. TAYLOR
5. WILEY/BLACKWELL

ACCORDING TO THE LIBRARIANS ARE PER THE ORDER:
1. EBSCO
2. SPRINGERLINK
3. ASABE
4. TAYLOR
5. WILEY/BLACKWELL

BOTH THE DIRECTORS AS THE LIBRARY COINCIDE WITH THE DATABASE WITH GREATER DEMAND.

VIII.   IMPACT OF THE PROGRAM ON THE DEVELOPMENT OF UNIVERSITY LIBRARIES IN THE 3 YEARS OF EXECUTION:

8.1 Synthesis chronology of development Program PERii 2008-2011.
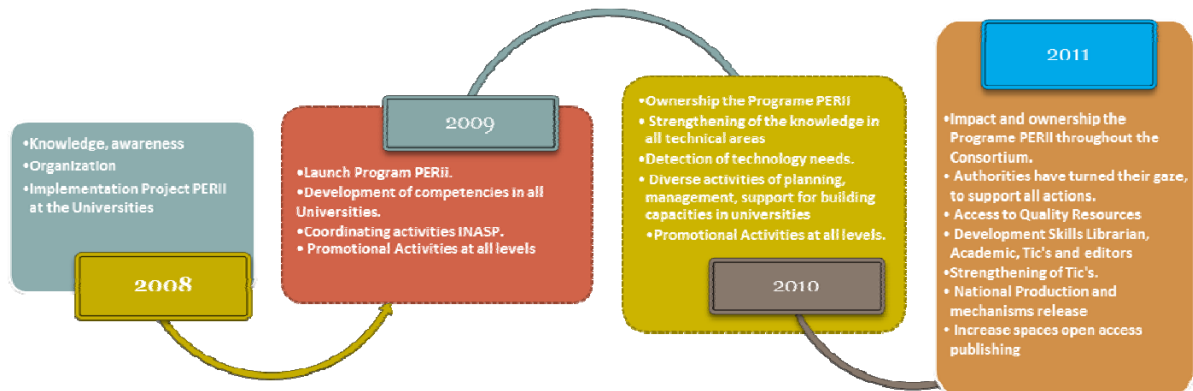
8.2 Evaluation by Component 2008-2010, in its three years of management project PERii

COMPONENTES PERii
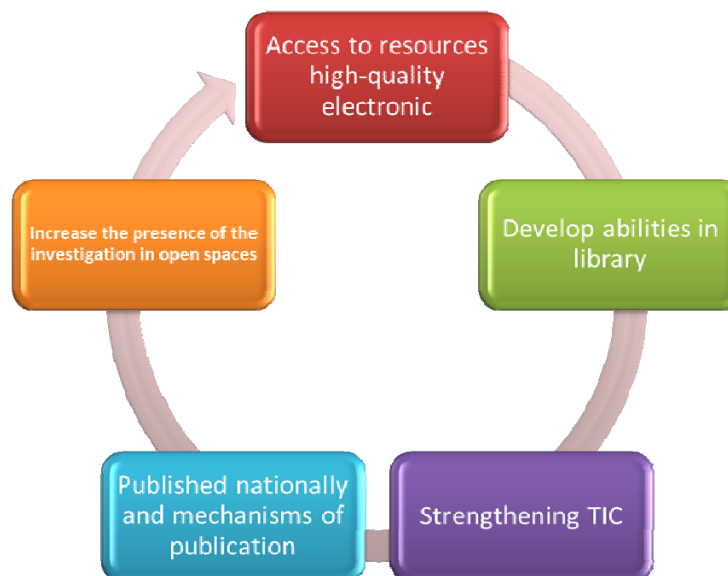
1. **Strategies implemented by the Coordination PERii – Nicaragua:**

1- Work coordinated with key actors of the universities of CNU.

2- Organization and work coordinated with Teams PERii, of each university.

3.4. Results by components:

✤ **Component 1:** Access to Electronic Resources of quality

Annex 2: Statistics EBSCO for the three years 2008-2010.

Annex 3: Statistics Database INSP-PERII 2008-2010.

✤ **Component 2:** Development of abilities in the academic library, Staff Tic's and Editors.

CONSOLIDATED

Training PERII					
2008-2011					
Year	librarians	Investigator's/Academic's	Personal TIC	Editor's	Total
2008	140	148			288
2009	131	56	59		246
2010	26	132	16	136	310
2011	82	28	34	56	197
TOTAL	379	364	109	189	1041
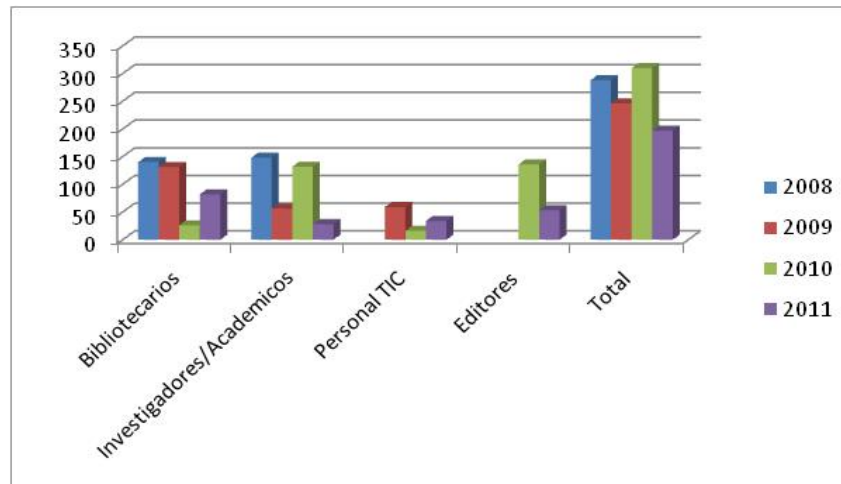
✸ **Resulted component 3:** Strengthening of the Tic's

- Diagnosis was made Tic's in the Libraries of the CNU.
-Workshop of Socialization Results of Diagnostic.

CONSOLIDATION DEVELOPMENT COMPETENCY TIC'S

Personal training TICI				
2008-2011				
Year	Optimization And Bandwidth	Linux	And Bandwidth Optimization Advanced	Administration Network	Total
2009	23	18	18		59
2010			16		16
2011				34	34
TOTAL	**23**	**18**	**34**	**34**	**109**
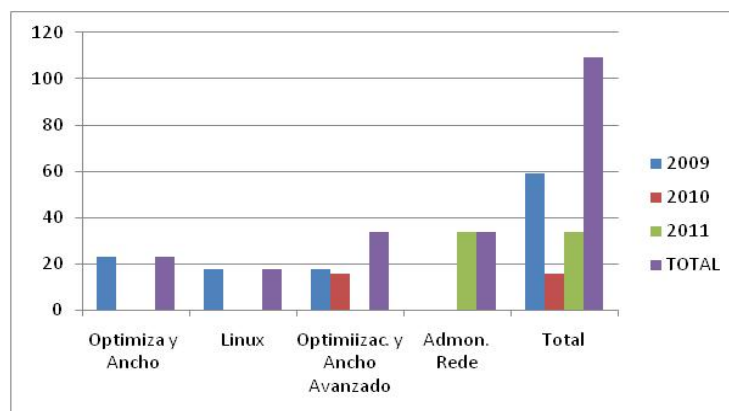
STRENGTHENING INFRASTRUCTURE:

☐ **Delivery of computer equipment connectivity, servers to universities of CNU**

Universities	Equipment		
	Computer	**Servers**	**equipment connectivity and other**
EIAG-RIVAS	5	1	1 cable box UTPCAT 1 Switch 50 connectors 1 Wireless Router
URACCAN	9	4	4 batteries Improvement of bandwidth
BICU	5	2	2 Wireless Router 15 Network cards 15 wireless antennas 2 media converter 2 switch 10 fiber optic connectors 8 convectors patch cord 50 connectors RJ45 1 cable box UTPCAT
UNAN-MANAGUA	5	1	
UNA	9	1	
UNI	9		Datashow
UCATSE	5	1	1 Switch de 16 puerto
UNAN-LEON	12		
UCA	5	1	
Total	**64**	**11**	

OTHER ACTIONS:

- Meeting of Directors and computer the equipment
- PERI - 19 de may 2009- Local: Central American University
- Meeting of Directors TIC and Representative INASP 22 de junio 2009
- Acquisition of software Translation

Component 4 (National production and publishing mechanisms)

o   Trained 364 Academics and researchers in the use and management themes of information resources, writing and science writing.

o   Made three events directed to magazine publishers at national level (162 participants).

Training Academics and Investigators				
2008-2011				
Year	AutorAid	Use and management of electronic resources	Scientific writing	Total
2008	20	128		148
2009	3		16	56
2010		56	76	132
2011			28	28
TOTAL	23	201	140	364
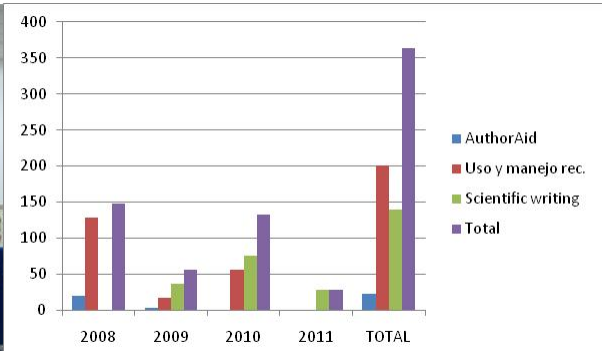
Component 5 (Increase the presence of the investigation in open spaces)

o Identified 25 national journals and included in the directory of the Regional Information System online for Scientific Journals of Latin America, the Caribbean, Spain and Portugal (LATINDEX)http://www.latindex.org.
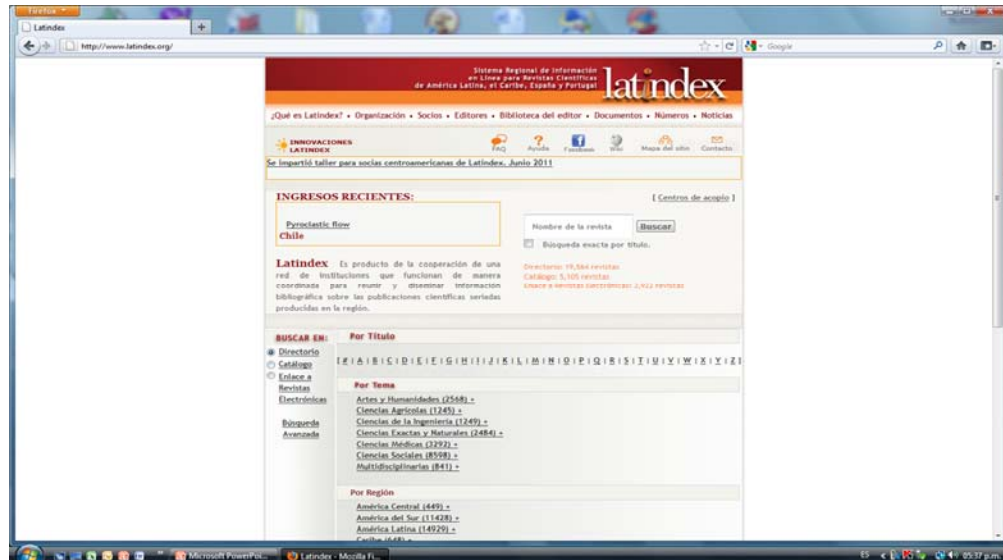
o Incorporated five scientific journals on the platform Latin American Journal on Line (LAMJOL) http://www.lamjol.info.

o Identified magazine editors the universities of the CNU and the nation

ACTIONS PROMOTION – PERii:

- Congress of Innovation for Rural Development
- National Encounter of Librarians.
- Authored Workshop on Scientific Writing.
- Participation in Fair National University Cooperation
- Presentation of PERII at various universities.
- Participation in Forums

MATERIALS PROMOTIONAL:

- Design of promotional materials
- Coverage of the Program PERII in different media (TV, radio, newspapers and others).
- It has website PERII with own domain, www.peri.net.ni.
- All the Universities promoted PERII through the website / blog.

8.3 General Assessment or appraisal from the Directors of the 9 University Libraries in study in three years:

1. In the development of the Library has had a great impact because would otherwise our libraries could not rely on these resources that contain certified multidisciplinary for developing of academic programs, research, accreditation of (database required). That is why the value acquired in our libraries by program PERI has been excellent; otherwise our university libraries do not offer these valuable resources for the new model of education training by competency. (We have obtained scientific information updated, evaluated and certified.

2. Through PERI, the Library plays a more functional and proactive, leading to have more bonding, articulation and communication with relevant Vice-rectories, facultative authorities, academics and investigators and staff TIC's in the University. Increased visibility the library in the university, increasing the supply, availability and accessibility to diverse electronic sources of scientific information, it was possible that the libraries are spaces with wireless Internet access, teamwork / network, including university libraries members of PERI, # of users trained.

3. Very good but I think they need to implement obligatory another subject, in the curricula.

4. We have new information services, access to scientific databases, online libraries better equipped, staff trained in use and access to database.

5. The project PERII has contributed significantly to facilitate with resources and information technology to support educational and research processes in universities, have increased the abilities and skills of staff in the use of information services. The acquisition of databases have strengthened the acquisition of documentation and scientific information.

6. For the year 2011 presented in the POA the strengthening the Library through the PERII conditioning of room PERII and further promote the program through of training do not have an accountant, this activity is currently programmed for 2011 and takes the information.

7. That with these resources that have we the library at the level of any developed country and above all investigators highly value the information are pleased to have access to these electronic resources.

8. The Program PERII at UNA has been a space that has allowed the expansion of information services, awareness of the importance of the information to development academic and investigation and greater visibility of the work of university libraries. An important aspect has been the strengthening of the staff capacities to manage these information resources and a culture change in authorities and academics in the use of these resources as valuable information.

8.2 Result interviews to Directors, Teachers and Investigators Tic's on evaluation general of Program management PERII.

Interviewed / University
UCATSE

Lic. Ivania Toruño M. Dir. Ciencias Agropecuarias-UCATSE:	Evaluate the Program PERII regulate, due to limitations in the process and encountered the little use of the databases students from UCATSE due to various constraints such as: The lack of culture and student research in the use of databases, you need a change of attitude is difficult to access the databases outside of the University, do not have wireless network access by the low capacity Network, and students have very little time for self-study, by the nature of the modality, students Sabatina offer no opportunity to access the database because the library serves until 4 pm • Features with very low bandwidth (2 megabyte). Benefits include: Training of human resources, Librarians, teachers and computers, in all subjects offered from the project Strengthening the knowledge among the perspectives have short-term creation of the Sala PERI and formalize the inclusion in the curricula actions of PERII
Profesora Flavia Área de Investigación	At the institutional level has been very good impact in the field of the investigation has been difficult by the lack of the culture of reading and research has been promoted to students to use the databases, there is little bandwidth, slow connection and lack support; only have a support room and have little time to use the databases.
	The Database PERI in relation to the profile of the University's most widely used are EBSCO, Springer and ASABE.
	Just have a support room and have little time to use the databases. Priority the training to teachers on the management and use of resources PERI at the university there is high turnover of staff to encourage students to use these resources.

UNI

Benjamín Rosales: Director de Investigaciones.	The BD is an excellent opportunity in the UNI-as in other universities of the country, because they respond to the "eternal" problema of the lack of access to scientific publications and current literature.

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The BD is an excellent opportunity in the UNI-as in other universities of the country, because they respond to the "eternal" problema of the lack of access to scientific publications and current literature.

in the UNI the two main research programs financed by ASDI-that integrate leading researchers at our university have not needed until the project because part of the support of the funding of cooperation included access to specialized databases. It is likely that now that Swedish cooperation has withdrawn from Nicaragua, more useful access to those BD project PERI.

I think he has failed more preparation / training in the use of the BD by the instances of coordination, and in general the culture of use of these publications is low by the university community, which is mainly in the case of UNI I mean, they do not have English language proficiency.

The coordination between the Library of the UNI and the Vice-Rector for Research and Development and its Directorate of Investigation has been Very tenuous, very low, it is necessary not only to improve channels of communication if the coordination for the implementation of strategies collegial to get more advantage to using these tools.

Regarding trainings PERII on the topics of scientific publications.
a) The UNI has been one of the institutions that most people have been involved in training, showing interest in harnessing these workshops.
b) The quality of the facilitators has been excellent and the resources provided have been very good.
c) It may have improved the coordination between the team PERI and participants to participate in the process of subscribing to BD and the organization of a instance that brings together the editors of magazines, because at times there is the feeling, at least among the participants UNI that decisions are taken from other instances and only those invited are validated with the universities.
d) The efforts of PERII have been valuable and useful.

Final Recommendations: Continue with the proposed access to the BD of PERI, continue with the training related to scientific publications, set in a collegial manner strategies of project implementation PERI, improve levels of communication at the library and of coordination of instances the investigation in universities and between the latter and the project coordination PERI.

Sixto Leonardo Chavarría
Director de la DITI

As director of the DITI am satisfied, in the previous months were trained two members of the DITI and we have had very good results, PERII came to reinforce this we have a vision for a little wider and obtaining the best performance, resources are scarce and to the extent that one can do a new job is profitable.

The Databases PERII, evidently as teachers are excellent and I've heard of the good students are the expressions that best leverage the bibliographic.

It borne fruit, their databases in support of teaching and apprenticeship support teaching because that is where students will reinforce and facilitate the work of the teacher and of the student thus feedback is a better understanding.

Benefits, Culture Change through the ICT have access to scientific articles for the information technology area.

Weaknesses, to do further study because every beginning is difficult.
-Do they make a diagnosis for how we are where we are going as we were because this is a learning curve.
-Do analysis of the actors Perform a self-
Coordination PERII: Coordination has been excellent because I had access to free training keeps us informed on the use of technology that we have to aim.

If you have a good training can make a replica of the same training .
Recommendations: Strengthening in the technological part, systematization of information, select the information they will put in the databases.
-Make quality control information that comes online.

EIAG

MSc. Álvaro González, es Responsable de Laboratorios de Manejo Integrado de Plagas	It has been very good initiative in academic performance, beyond the database, have received training on how to write scientific articles, unifying criteria like references cited. On a personal this has allowed us to improve my performance by providing tools that did not have before, trainings have guided, write well and make references and cite. **Benefits** are available databases that have become a fortress and that the information is not found in books and magazines. **Weaknesses:** Establish to internal a strategy to promote the use of databases as a necessity, the bandwidth is a necessity. **Recommendation:** Ensure that standard and any area that the students include references of the databases PERI in their research.
Profesora Cristian del Carmen Gómez Gutiérrez - Informática de Desarrollo de Software y Diseño	Between Program benefits PERI, these, the strength trained by computer PERI to keep statistics, real data to convince to the authorities of the importance to the University have the Data Bases PERI. The website did not have it at the University but was administered by UNI as from 2010 the EIAG has taken charge its administration; the training of PERI has allowed the installation of an analytical counter. Also PERI has permitted influence through meetings with the authorities; there was also a change from the training provided by PERI. **This strategy implemented** has called the attention to lecturers, researchers, promoting a shift in mindset and culture. The authorities have supported giving hours for training guides the students have priority Teachers are concerned. **Weaknesses:** Compete with Google the language, Login complicated, do not have a budget**.** **Recommendation:** Ensure that norm in any area that the students include references of the databases PERI in their research.
Profesor Jaime Molina Tic's Responsable de Servidores y redes	Between Program benefits PERI, the availability of the databases, taking into account that is a proven scientific information the users have had to hand the opportunity to consolidate knowledge. Constant benefit through the training on aspects that are around on the administration of the databases, network management, knowledge development. **Among the weaknesses identified** are the Language and the need for a culture change. **Recommend:** To continue working databases PERI, follow the training, strengthening local capacities, equipment.

UNA

Dr. Freddy Alemán
Zeledón
Director de
Investigación, Extensión
y Postgrado

PERII, has become an important complement in the actions that we have developed and performs the UNA throughout the chain generation of knowledge, I think this one thing where they had more weaknesses in the scientific information, often cannot write, limitations, because the information available that do not have PERII ended by having access to scientific information, quality information and has to be of support to researchers, came also to sensitize the authorities of the importance of have these resources and build capacity in infrastructure and skills of individuals, knowledge management, knowledge management online all this has been part of products, including the consortium has been formed, the network is an important product because it has allowed actions to develop information management.

Benefits: Raising awareness of the authorities, conformed networks, Knowledge management, training, No. databases they have access, management online journal.

Recommendations: Continue with this project, making a good selection of these materials. Annually make a good assessment to evaluate the use of these resources, or replaced by others if necessary, conduct an annual evaluation through the bibliometric indicators**.**

The coordination PERII through the Ruth Velia has taken very seriously the case, has given a push standing at the head of this program, success has been the product of its management.

Marlon Serrano Tic's
Administrador de la Red
Telecomunicaciones

With PERII there are many benefits, trainings have been used for daily work, install new tools.

-The management of the network has been improved; it takes a little more order.

 -The application has also improved

Recommendations: Follow up on all previous actions to improve policies for access.

Roger Videa Araica
Resp. de Tecnología
Educativa
Ing. Roberto Blandino
Soporte de Tic's

Know very little, PERII but if you know about the support in the investigation to students through their databases on specific topics have hardly been involved in the training. The major use has been at the level of thesis students and researchers.

 PERII has enriched the knowledge of the university, there is information that is not in the books, the information is updated without the need for to acquire great cost information.

UCA

Msc. Wendy Bellanger
Directora de
Investigación/ Editora de
la Revista Encuentro.

PERI has been the most useful of all the projects that we had access from the CNU. Training has been useful and clear goals that we have got something to improve and have been able to do through the project.

It has provided training opportunities that we did not have and that we used to implement, as Director of Investigation and editor of the journal encounter.

The journal owes much of its encounter the project PERII improvements, some cases with the review process has been strengthened share has taken relevance but now we see the importance at the level of the CNU. At the level of other journal publishers as valuable something important.

Between the benefits of program PERI is the availability of the databases, taking into account that is verified scientific information, users have had the opportunity to consolidate hand knowledge.

Constant benefit through the training on aspects that are around on the administration of the databases, network management, knowledge development

Among the weaknesses identified are the Language and the need for culture change.

Recommend: To continue operating the databases PERI, following up on training, strengthening local capacities, equipment

UNAN-MGA.

Dr. Gustavo Sequeira
Director de Investigación

Very helpful and useful..

We have improved our programs the training of researchers in line and have taught students and teachers to perform advanced searches of Investigation

excellent

The level of absorption by the teaching staff has not been a waste

Maintain the program with contributions of other institutions.

IX. EVALUATION OF DIRECTORS OF THE UNIVERSITY LIBRARIES IN RELATION TO THE SUPPORT OF THE COORDINATION PERII NICARAGUA.

1. Excellency, the support provided by the Coordination of PERII, is a person who exercises a good leadership team also is proactive, dynamic and visionary development, however we need more human resources to function better.

2. The support has been excellent level of coordination, management and acquisition of equipment coordination to participate in meetings and evaluations and training. However necessary accompaniment to the library to see the problems up close, example IP access and assign more quotas for training Library staff especially the autonomous regions.

3. It has provided us with precise information, attendance has been very good and careful treatment through this we managed to meet the proposed objectives and overcome barriers that not we thought achieve.

4. I think it is of much benefit this coordination

5. Very good, by mail, telephone and in training, their consent has been very good

IX. CONCLUSIONS AND RECOMMENDATIONS.

Conclusions:

1. The strategies implemented in these three years of management by the Coordination of PERII, to conform the Consortium or University Network has been a great success.

2. The Coordination has interacted permanently through the team PERII conformed in all libraries.

3. It is unanimous on the part of university authorities, researchers and teachers that the management of the UNA has been successful.

4. The 100% of the universities have incorporated in their POA, the promotion, induction, training resources PERII.

5. The majorities of the Universities have been appropriate and has been the impact on resource use PERii, some of them need technical support to achieve their total appropriation.

6. The Libraries have been modernized, offering new information services with high quality information sources and certified through the electronic resources offered by PERII.

7. PERII, has strengthened the technological resources provide to the libraries to the necessary means (computer equipment, servers, among others, as well as technical assistance) to the Database from functioning optimally and can provide excellent information service.

8. The 90% of the libraries now have wireless access for students and has expanded its bandwidth.

9. The university authorities have turned their gaze to the libraries and have supported all in the actions of promotion, training and subscription the Database PERII.

10. While PERII has permitted a culture change in the use and management of scientific information in the universities, promoting research, giving it greater visibility and leadership to the University Libraries, is necessary to strengthen this process through not only of induction training sessions if no technical training in the use and management of each of the databases.

11. PERII has developed capabilities of key actors of the University community as Investigators, teachers and Tic's to ensure the use and management of information resources.

12. The University Libraries have developed competencies and the third year have been evidenced accomplishments through the statistics analyzed, but there is still weakness in relation to the training as manifested by teachers and students have limited download the complete document reflecting that familiar with the management of databases.

13. The training has been aimed primarily at Investigators, teachers and magazine editors for students only at of induction.

14. Through the PERII, the Universities have had the opportunity to join Latin America.

15. In the context of PERII was identified in the universities and the country to the editors of scientific journals in order to facilitate access to international level.

16. By unanimity of the surveyed suggest, make a consensual selection of databases PERII looking.

17. In most of the universities unanimously teachers declare that there is little coordination relationship between the library and area investigation.

18. Authorities, Researchers, teachers, library directors say it is a necessary resource to strengthen research and study, for what it is necessary to renew them. Of approximately 70% of libraries say they have the capacity to renew subscriptions, the rest, only using the same strategy of past years.

Recommendations:

1. That the one supported by the CNU, the continued leadership of the Consortium PERII, in order to identify and implement strategies tracking aimed at financial and technological sustainability of Electronic Resources in all universities.

2. That the CNU, included as a strategic component in the development of the universities and incorporate it into future projects.

3. That universities strengthen the articulation of the key actors from each of the universities (Library Directors, Researchers, and Tic's for achieving further development, ownership and impact of PERii

4. Make the selection of databases in a consensual manner with the key actors of each university, before renewing subscriptions.

5. Directing the promotion and training to students.

6. Strengthen the teaching and learning processes through the practice for known the management and use of databases.

7. That PERII, strengthen support aimed at those universities with higher training and technological constraints.

8. Promote the incorporation of other universities interested to be part of the Consortium PERII.

9. Strengthen the work already begun with magazine publishers.

10. Included in the curricula of all universities the Project PERII, there are already experiences.

11. Strengthen and monitor the change of culture in the use and management of information, promoting research

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ANNEX1: Average monthly assessment, maximum, minimum use of the EBSCO database

EBSCO	BICU	%BICU	URACAN	%URACAN	LEON	%LEON	UCA	%UCA	UNA	%UNA	UNI	%UNI	UNAN-MANAGUA	% UNAN MANAGUA	EIAG	%EIAG	UCATSE	% UCATSE	Total	Promedio mensual	Maximo	Minimo	Mediana
Separate user session in the month	301	4.5%	487	7.4%	1690	25.5%	1994	30.1%	473	7.1%	334	5.0%	955	14.4%	367	5.54%	20	0.3%	6,621	52	1,994	20	480
searches performed	1394	2.1%	3683	5.5%	7467	11.2%	16850	25.2%	2285	3.4%	7314	11.0%	11765	17.6%	15819	23.69%	186	0.3%	66,763	425	16,850	186	5,499
abstracts downloaded in the month	293	4.5%	500	7.7%	1908	29.4%	1843	28.4%	401	6.2%	256	3.9%	916	14.1%	323	4.97%	53	0.8%	6,493	51	1,908	53	451
Articles downloaded (PDF) in the month	295	4.7%	600	9.5%	1957	30.9%	1547	24.4%	525	8.3%	390	6.1%	699	11.0%	277	4.36%	53	0.8%	6,343	51	1,957	53	563
Articles downloaded (HTML) in the month	15	4.5%	42	12.7%	65	19.6%	84	25.4%	59	17.8%	20	6.0%	31	9.4%	15	4.53%	0	0.0%	331	3	84	0	37
Total articles downloaded	310	4.6%	642	9.6%	2022	30.3%	1631	24.4%	584	8.8%	410	6.1%	730	10.9%	292	4.57%	53	0.8%	6,674	54	2,022	53	613

ANNEX2: Consolidated Data Base EBSCO 2008 -2010

EBSCO	BICU 2008	BICU 2009	BICU 2010	URACAN 2008	URACAN 2009	URACCAN 2010	LEON 2008	LEON 2009	LEÓN 2010	UCA 2008	UCA 2009	UCA 2010	UNA 2008	UNA 2009	UNA 2010	UNI 2008	UNI 2009	UNI 2010	UNAN 2008	UNAN 2009	UNAN 2010	EIAG 2008	EIAG 2009	EIAG 2010	UCATSE 2008	UCATSE 2009	UCATSE 2010
User Session	75	31	301	65	476	487	233	3406	1690	194	906	1994	184	1455	473	139	658	334	201	950	955	0	72	367	44	148	20
Searches performed	213	110	1394	529	2949	3683	987	17849	7467	1412	6585	16850	683	4622	2285	607	15407	7314	350	2988	11765	0	147	15819	156	743	186
Abstracts downloaded	76	113	293	28	11	500	185	132	1908	126	1354	1843	124	1308	401	107	468	256	111	1005	916	0	48	323	41	145	53
Articles downloaded (PDF)	68	65	295	97	808	600	169	3686	1957	37	857	1547	104	1291	525	90	642	390	55	598	699	0	67	277	65	175	53
Articles downloaded (HTML)	39	5	15	3	65	42	14	194	65	22	51	84	15	240	59	9	129	20	5	48	31	0	2	82	3	3	0
Total of articles downloaded	107	70	310	100	873	642	183	3880	2022	59	908	1631	119	1531	584	99	771	410	60	646	730	0	69	359	68	178	53
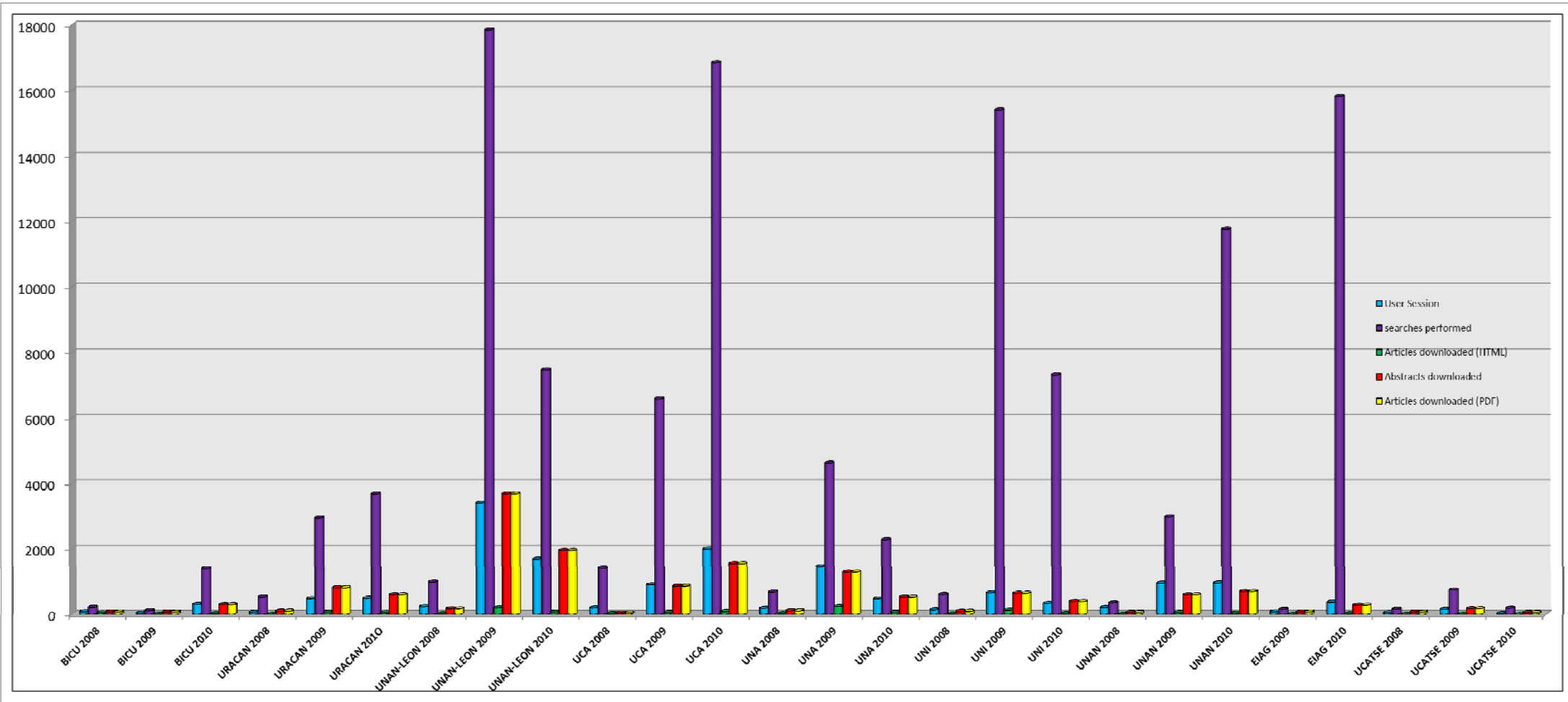
ANNEX 3: Consolidated Data Base INASP PERii 2008 -2010

Totals													
PERI registrants	0	0	0	0	0	0	0	0	0	0	0	0	0
Separate user sessions in month	0	0	114	0	0	0	0	0	107	846	282	66	1,415
Searches Performed	0	0	2	0	0	0	0	0	981	3,811	974	311	6,079
ToCs downloaded in month	0	0	0	0	0	0	0	0	31	55	0	2	88
Abstracts downloaded in month	0	0	236	0	0	0	0	0	141	571	230	72	1,250
Articles downloaded (PDF) in mo	0	0	0	0	0	0	0	0	242	501	264	1,352	2,359
Articles downloaded (HTML) in m	0	0	0	0	0	0	0	0	141	72	20	196	429
Document deliveries	0	0	0	0	0	0	0	0	0	0	0	0	0
Total documents obtained	0	0	0	0	0	0	0	0	383	573	284	1,548	2,788
Totals													
PERI registrants	127	127	127	157	157	157	170	170	170	165	156	156	78
Separate user sessions in month	561	2,222	334	165	204	193	240	222	317	213	106	527	5,304
Searches Performed	1,719	9,362	6,126	2,392	4,102	13,606	6,822	6,220	9,789	64	7,365	1,746	69,313
ToCs downloaded in month	93	64	104	54	23	42	88	25	39	28	145	166	871
Abstracts downloaded in month	510	2,213	2,534	955	1,320	1,338	1,232	1,320	1,658	168	1,029	276	14,553
Articles downloaded (PDF) in mo	350	1,394	1,092	363	970	1,035	943	1,030	1,567	25	466	213	9,448
Articles downloaded (HTML) in m	113	397	655	268	201	274	152	160	907	42	401	170	3,740
Document deliveries	0	0	0	0	0	0	0	0	0	0	0	0	0
Total documents obtained	463	1,791	1,747	631	1,171	1,309	1,095	1,190	2,474	67	867	383	13,188
Totals													
PERI registrants	185	150	150	150	150	150	150	150	150	167	167	167	167
Separate user sessions	796	992	1,633	1,609	807	767	692	845	1,056	1,682	1,990	233	13,102
Searches Performed	7,215	14,850	23,787	29,389	10,789	8,926	9,704	13,956	8,994	36,733	50,860	3,965	219,168
ToCs downloaded	18	23	14	27	7	7	14	6	1	1	1	0	119
Abstracts downloaded	1,065	1,192	1,876	2,380	796	646	605	800	1,160	2,847	3,352	364	17,083
PDF articles	865	1,027	1,310	1,411	801	1,163	833	1,104	1,253	5,540	1,696	402	17,405
HTML articles	137	305	928	851	146	153	70	135	125	922	1,269	119	5,160
Document deliveries	0	0	0	0	0	0	0	0	0	0	0	0	0
Total documents obtained	1,002	1,332	2,238	2,262	947	1,316	903	1,239	1,378	6,462	2,965	521	22,565

Total 38,541   documents obtained

Nicaragua usage