

## **BIBLIOGRAPHY**

CAÑERO III, ALFREDO C. APRIL 2013. Creation of Knowledge Center in the Department of Agriculture-Cordillera Administrative Region- Regional Field Unit- Regional Agriculture Fisheries and Information Division (DA-CAR-RFU-RAFID).

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## **ABSTRACT**

The study was conducted to create the Knowledge Center in the Department of Agriculture-Cordillera Administrative Region-Regional-Agriculture Field Unit Rural Agriculture Fisheries and Information Division (DA-CAR-RAFID).

Specifically, it intended to identify the available information materials at DACAR-RAFID; classify and sort all the information materials; catalogue all the information materials found; establish a borrowing and returning system of the knowledge center; and, create a digital library of the knowledge center collection

The researcher interviewed one key informant and conducted a focus group discussion with the five media specialists and two ICT technicians of the Division. Coding sheet was used to classify the information materials.

A total of 1,322 were collected and organized in the Knowledge Center. These came from the different organizations, institutions, and other related agencies. There were 13 types collected based on the nature of materials. These were classified as Reference Book,



Manual, Techno-Guide Production, Newsletter, Information Kit, Newspaper, Magazine, Comics, R & D Journal, Highlight, Proceedings, Leaflet, Comics and Information Bulletin.

The Dewey Decimal System was used to catalogue the Information Materials. The data were listed according to the coding sheet: author, title of the information material, date and place of publication, number of pages and also the cutter number was generated using the OCLC cutter number program which served as the Call Number of each Information Material. The cutter numbers were printed and were used as label on the spine of the classified Information Materials. The shelves were also labeled and arranged near the receiving area of the RAFID office making up the Knowledge Center The Digital Library of the DA-CAR-RAFID was created using the Adobe Dream

Weaver software. The data from the catalogued information materials were loaded in the Adobe Dream Weaver Software and were operated using Html files. Final entry was uploaded to the [www.librarything.com](http://www.librarything.com) website. The study concluded that The DA-CAR-RFU-RAFID Knowledge Center had a number of information materials which can be utilized by its stakeholders if it is made accessible. An organized Knowledge Center made Information Materials more accessible to stakeholders of the Regional Office. The DA-CAR-RAFID Digital Library served as an avenue for the Division to upload more Information Materials which can be accessed by Stakeholder online. With these conclusions, the study recommends that the Knowledge Center may consider hiring skilled staff for the monitoring and improvement of it. The Knowledge Center may also consider having a multimedia and internet section for further usage and research.



## RESULTS AND DISCUSSION

### Available Information Materials

A total of one thousand three hundred twenty two (1,322) Information Materials (see Appendix A to M ) were collected from the DA-CAR-RAFID and also from the five (5) Regional Field Units of the DA-CAR namely Rice, High Value Development Crops, Agribusiness, Livestock and Organic Agriculture in which the five banners of the program of the Regional Office were incorporated.

Most of the Information Materials came from the Regional Division that were produced and published since the Division was established but they were just stored in the stock room and were not for public use and access. Some came from different institutions such as the Department of Agriculture National Office, Bureaus of the Department of Agriculture, PhilRice, PhilMech, Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD) and other related government institutions that were used only for references. These were mainly for the use of the members of the RAFID for making articles, Instructional-Educational-Campaign (IEC) materials and some research.

Some of the information materials were owned by the past and the recent Director of the DA-CAR and also the head of the RAFID Division that were donated purposively.

Generally, the topic of the Information Material revolves mostly around agriculture specifically on rice, high value crops, fishery, forestry, pest management, dairy



farming, plant disease management and livestock. Others were on environment topics, health, gender and sensitivity and community organizing.

### Information Materials Classification

The Information Materials were sorted and organized according to the nature of the materials ( see Appendix A to K ): Reference Book, Manual, Techno-Guide

Production, Newsletter, Information Kit, Newspaper, Magazine, Comics, R & D Journal, Highlight, Proceedings, Brochures, Leaflet, Comics and Information Bulletin. These were then arranged in the four (4) 6 x 2 feet in bookshelves purchased by the Division for the

Knowledge Center.

Table 1. The overall collected Information Materials

TYPE OF INFORMATION MATERIALS	QUANTITY
Newspaper	700
Reference Books	153
Magazines	135
Techno-guide Production	102
Information Bulletin	96
Brochures	44
Newsletter	36
Manual	22
Journal	16
Highlights	12
Proceedings	9
Information Kit	7
Comics	6
Total	1,322



Out of the 1,322 Information Materials collected, most collected were Newspaper (700) since the division is subscribing to Sunstar Baguio daily newspaper which served as a medium for the Division's press release since 2010. This was followed by the Reference books (153), Magazines (135) and Techno-guide Production (102). Fewer were collected on Comics (6) and Information Kit (7) published by other cooperating and related agency.

*Newspaper.* The collection was manually bounded according to year and arranged in descending order (Figure 3) from January 1, 2010 to May 20, 2010 and January 12, 2011 to December 28. However, the 2012 newspaper collection was not included for they were used for the report filing of the Division.

*Magazine.* Magazine collection was also placed in the shelf as shown in Figure 4. During the time of the study, 135 kinds of magazines which were displayed. Most of it was on environment topics and some covering different topics such as family planning, population, maternal health, environment conservation, forestry, harvesting, agribusiness, marketing and sustainable agriculture. The Waterlines magazine had the highest quantity followed by the Environmental Health Magazine which has the total of 13. While the least in number was the Forest, Tree and People magazine which has three (3) kinds.

The oldest magazine was on “Concert for Mother Earth” John Hopkins University Center for Communication Campaign. Some of the magazines were subscribed by the Division specifically the Monitor and Outlook Magazine.





Figure 3. Newspaper collection



Figure 4. Magazine collection

Reference Books are distributed by the DA National Office on a regular basis whenever they publish researches and other information updates. Others came from cooperating and related agencies (Figure 5). Most of the topics were on rice and pest management. PhilRice had the higher reference book (11) published followed by PCCARD. Some were published by other authors and the Department of Agriculture-Cordillera Administrative Region itself. The oldest was in 1966 entitled– Grasshoppers and Locusts by Boris Uvarov published in Great Britain.

*Techno-guide Production.* A total 102 kinds were collected and all of them are about the different processes in Agriculture from planting to harvesting (Figure 6). The Information Materials were arranged in two shelves following the main topic per each shelf. The International Institute for Environment Development (IIED) had the highest in number published which had 50 and followed by the Department of Agriculture ( DA) which had 32. The oldest material was in 1990 entitled "Environmental Aspect of the Bangladesh Flood Action Plan" published.





Figure 5. Reference book collection



Figure 6. Techno-guide Production collection



*Information bulletin.* A total of 96 kinds of Information Bulletins were collected (as shown in Appendix C). These materials were arranged in the shelf alphabetically following the author (as shown in Figure 7). Mostly were from Food and Fertilizer Technology which with 44 kinds and followed by PhilRice which with 17. Topics were on food safety, fertilizer effects rice production and rice pest management. The list published from 1995 to 2010.

*Leaflet.* The leaflet had a total of 44 kinds as shown in Appendix F. These materials were mostly colored copies and characterized by the number of folds (see Figure 8). The Department of Agriculture-Cordillera Administrative Region (DA-CAR)

National Office produced the most material followed Department of Agriculture Cordillera Administrative Region (DA-CAR). The topics surrounded were on agriculture specifically livestock, rice, composting, vermiculture and making profit. Most of the materials had no dates indicated and were published in the Philippines.



Figure 7. Information Bulletin collection



Figure 8. Leaflet collection

*Newsletter.* Newsletter collection included the Division's press releases articles and which were published as one of their mandates for information and communication. From 2004 to 2005 as the DA-CAR-RAFID Newsletter until it was change to AgriCordillera until present. It published quarterly that includes news, features, research and column articles. The Charm 2 Newsletter from 2010 to 2011 was also included in the collection. Meanwhile, Rice Today newsletter of the International Rice Research Institute (IRRI) has only one issue in 2004.

*Journal.* Journal collection had 19 kinds were focused most in research and development. The content of each journal was the compilation of abstracts and results of the study. Different journals were gathered from academic institutions specifically the Benguet State University (BSU), University of the Philippines Los Banos (UPLB), Philippine Phytopathological Society and other organizations such as Philrice, Philmech

and Philippine Mechanization Bulletin. The oldest journal was published in 1977 which was the MSAC Research Journal.

*R & D highlights and proceedings.* Further, published researches that were compiled in a year were also included. There were 12 kinds collected and the highest in number was the Philippine Conservation on Agriculture Forestry Natural Resources Research and Development (PCARFNRRD) Highlights (10) from the year 2009 to 2010. The least collected was from the PhilRice R & D highlights (1) in 2009. Proceeding on the other hand had 9 kinds collected in which most of them were on agriculture. ACIAR had the most number published proceedings followed by Philippine Conservation on Agriculture Forestry Natural Resources Research and Development (PCARFNRRD).

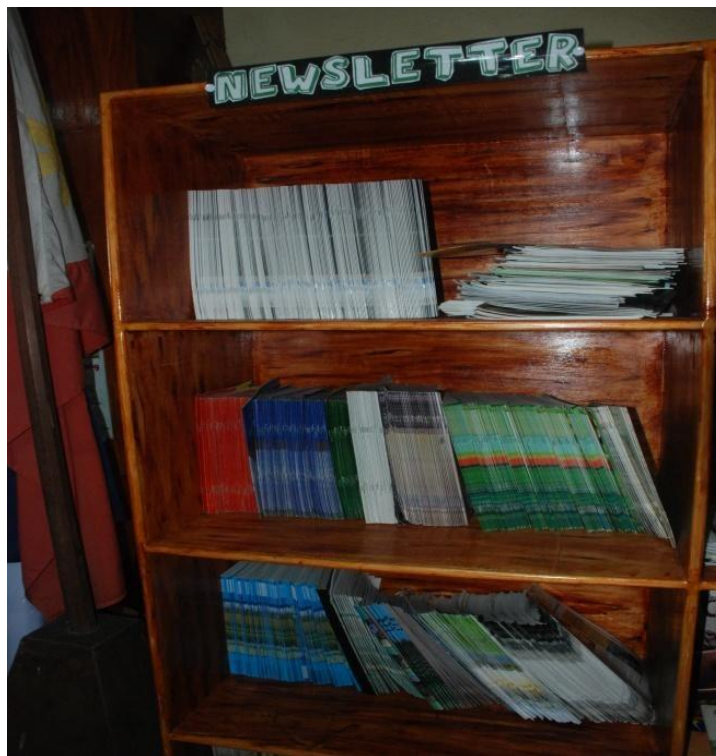


Figure 9. Newsletter collection

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Figure 10. Collection of Research and Development Journal,  
Highlights and Proceedings

*Manual.* The 22 collected Manual (see Appendix E) focused on agriculture concerning the know-how process that may help the reader to follow the steps or procedures. They were placed in one part of the shelf as shown in Figure 11. PhilRice (6) has published most of the manuals followed by International Rice Research Institute (4). Pictures and tables were included in this material. The oldest manual in 1985 was produced by Oxfam titled Water Storage Pack, 10,500 Liters Storage Pack, Water

Distribution Pack and Water Pumping Pack. The Manual of Participatory Technology Development Activities for Integrated Pest Management vegetables had the most number of pages of all the collection which was 392.

*Information kit.* The Information Kit was the second to the last in terms of quantity (see Appendix H). A total of seven (7) copies were included in the collection and arranged

in one filing. These kits focused on fruits, coffee and corn production. Most of it were published in 2000 except “Stories from the Field” by IFAD that had no date,

*Comics.* Comics have the least number of collections with six (6) kinds only. It was characterized by drawings and text that had a flow of a story. These were produced by the DA, PCCARD, Biotech for Life, National Infrastructure Authority (NIA) and PhilMech.

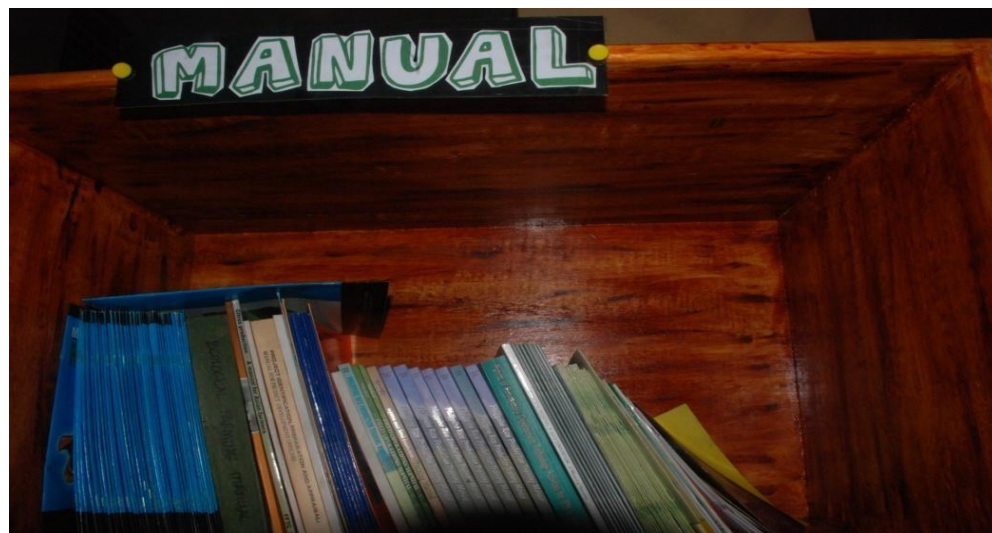


Figure 11. Manual collection



Figure 12. Comics collection

The CD's and DVDs were not included because they were prohibited for public use and is used Division's only. All Information Materials may be freely accessed by any user subjected to some rules and regulations as stated by Chauhan (2009) that it is a part of open access publishing which the material are available to all potential users without financial or other barriers.

All Information Materials were classified for organized and proper arrangement as emphasized by Brittanica.com (2012) that it enables patrons to find materials easily and quickly and arranged in some order unites, controls the information from various sources.

The Knowledge Center followed the Dewey Decimal Classification System since the array was small and still at the beginning subject to improvement. It was stated that it is most widely used method in classifying libraries and according to Halsey (Nd.) that this system is a general organizational tool that is continuously revised to keep pace with knowledge.

Each Information Materials was labeled at the spine or in front which contain the cutter number system which was generated using in the Dewey Cutter Software. This is the call number containing letters and numbers and the date published for easy locating.

### Cataloguing of the Information Materials

The Dewey Decimal System was used to catalogue the data for the Information Materials. The data was listed according to the coding sheet (see appendix A-K). The data was then entered in the OCLC Dewey Cutter Program Version 1.10.6 which generated the cutter number based on the author (see Figure 13).



The cutter numbers were printed and were used as label on the spine of the classified information materials. The shelves were also labeled and arranged near the receiving area of the RAFID office making up the Knowledge Center.

The Information Materials also underwent cataloguing process as shown in Appendix A to M in which the following data were gathered such the author, title of the information material, date and place of publication, number of pages. Other details were number of copies, with pictures, diagram and tables and whether the copy is black and white or colored. It was stated by Caro (2000) that it's about the process of making a bibliographic record and getting some pertinent details about published work particularly books and periodicals.

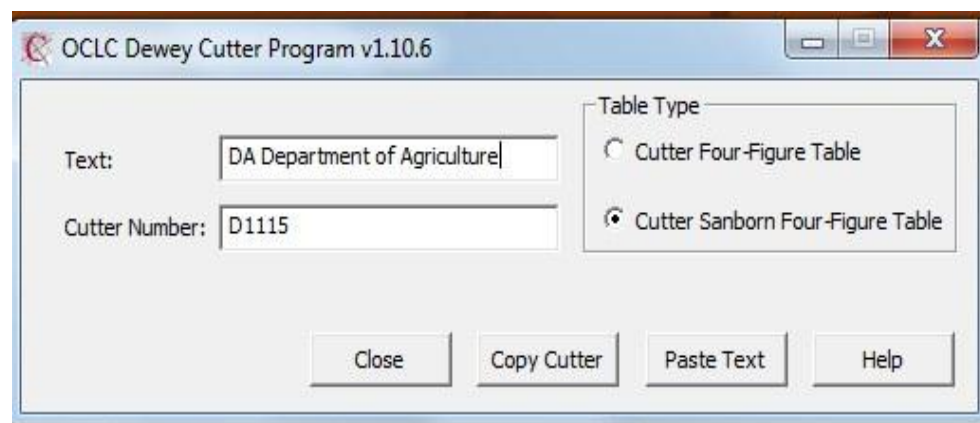


Figure 13. Dewey cutter program

### Borrowing and Returning System of the Knowledge Center

During the Focus Group Discussion with the following Media Specialist of the Divisions; Eryrl Palcon, Anna Marie Bautista, Alice Tabuno and Crisante Rosario of the division and two (2) ICT Technicians; Jason Gamsawen and Jojo Alejo , the Borrowing and Returning of the Knowledge Center was generated.

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*Borrowing of information materials.* A client can avail Information Material inside the Knowledge Center if it is available. The borrowers get the call number and the title of the material then fill-up the information on the logbook and deposit a valid I.D. A Staff or Officer-in-charge will sign the listing. The Schedule of Borrowing is from 8:00 to 5:00 pm from Monday to Friday only. The Information Materials are allowed to be borrowed for a maximum two weeks and in case a member of the Division reserves the material/s, it may not be borrowed. The borrower is required to read carefully the library rules and regulations before filing the needed information. The borrower will be given a maximum of three (3) offenses: 1<sup>st</sup> Offense, Warning; 2<sup>nd</sup> offense, Fine; 3<sup>rd</sup> Offense,

Prohibition of the use of the Knowledge Center.

*Returning system.* Information material/s shall be return to the staff or the Officerin-charge of the Knowledge Center. The materials will be checked and verified before the borrower returns it to the shelf.

### Digital Library of the Knowledge Center

As part of the study, a digital library was created with the use modern technology. As stated by Lynch and Molina (1995) a Digital Library will ideally provide a coherent view of all of the information contained within a library, no matter its form or format and serve particular communities or constituencies, as traditional libraries do now, though those communities may be widely dispersed throughout the network.

Also, as supported by Arms (1995), Digital Libraries are the digital face of traditional libraries that include both digital collections and traditional, fixed media collections so they both encompass both electronic and paper materials.





However, according to the Jojo Alejo, DA ICT Head, their division was limited to maintenance and updating of the Regional website and uploading of photos and articles. They did not have control of the website of the National Office which is the repository of the materials of the Department of Agriculture. Because of this, RAFID cannot upload Information Materials from their office even if they have a number of available Information Materials that may be used by the stakeholders who are base in the different provinces of the region.

Furthermore, Paul Garcia, BSU ICT Head suggested that there are many websites in the internet that can be used for uploading catalogued files for a digital library.

However, some these are subjected to some terms and conditions.

The Digital Library of the DA-CAR-RAFID was developed using the Adobe Dream Weaver software (See figure 14). The data from the catalogued information materials: title, author, data and place publication, number of pages, cutter number, remarks and pictures was loaded in the Adobe Dream Weaver Software which operated Html files were uploaded to the website.

The website used was [www.librarything.com](http://www.librarything.com) as suggested by Paul Garcia, BSU ICT head. It is social cataloging web application for storing and sharing book catalogues and various types of book metadata. It is used by individuals, authors, libraries and publishers.



## SUMMARY, CONCLUSIONS AND RECOMMENDATION

### Summary

The study was conducted to create the Knowledge Center in Department of Agriculture-Cordillera Administrative Region-Regional Agriculture Field Unit Rural Agriculture Fisheries and Information Division (DA-CAR-RAFID) by answering the following objectives: to identify the available Information Materials at DA-CAR-RAFID; to classify all the information materials; to catalogue all the Information Materials found; to establish a borrowing and returning system of the knowledge center and create a digital library of the knowledge center collection.

A focus group discussion was used to gather the data needed from the four (4) Media Specialists: Eryrl Palcon, Anna Marie Bautista, Alice Tabuno and Crisante Rosario of the division and two (2) ICT Technicians; Jason Gamsawen and Jojo Alejo . A coding sheet and table were used for the classification and cataloguing of the Information Materials. Data gathered were presented through discussions. Tables were used to present the data of the available information materials, the classified and catalogued materials and a flow chart of the process of creating the knowledge center was also done. Further, Photos of the Knowledge Center and Screen Capture of the Digital Library were also done.

A total of one thousand three hundred twenty two (1,322) Information Materials were collected and organized in the Knowledge Center. There were 13 types based on the nature of materials and were classified as Reference Book, Manual, Techno-Guide 50 Production, Newsletter, Information Kit, Newspaper, Magazine, Comics, R & D Journal, Highlight, Proceedings, Leaflet, Comics and Information Bulletin.

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Newspaper had highest in number followed by magazines and techno-guide production respectively while the least were the Comics and the Information Bulletin. Most of the topic revolves on agriculture and environmental conservation. Also most of the Information Material came from other agencies related to the Department of Agriculture (DA).

The Dewey Decimal Cutter Program was used to generate the Call Number of each Information Material for ease of locating and the Information Materials were arranged in the shelves were labeled. Classifying, cataloguing and labeling made it easier to locate the materials.

The created Borrowing and Returning System was identified from the recommendations of the staff to ensure the Knowledge Center is fully monitored and to make it easier to access Information Materials.

There was no existing Digital Library of the DA-CAR-RAFID because the ICT Division of the Division had no control over of the National Office which is the repository of the Information Materials of the Department of Agriculture. Because of the Division cannot upload Information Materials from their office even if they have a number of available Information Materials that may be used by the stakeholders.



## Conclusions

Based on the finding following conclusions were drawn:

1. The DA-CAR-RFU-RAFID Knowledge Center has a number of information materials which can be utilized by its stakeholders if it is made accessible;
2. Most Information Materials came from the organization itself and other related agencies of the Regional Office;
3. An organized Knowledge Center makes Information Materials more accessible to stakeholders; and
4. The DA-CAR- Digital Library serves as an avenue for the Division to upload more Information Materials which can be accessed by Stakeholders online.

## Recommendations

Based on the findings and conclusion the following are recommended:

1. The Knowledge Center may consider hiring a skilled staff for the monitoring and improvement of it;
2. The Knowledge Center may consider having a multimedia and internet section for further usage and research;
3. The Knowledge Center should be updated and maintained to serve its purpose specifically a study focusing on the evaluation of the Digital Library;
4. The Knowledge Center should be updated and maintained to serve its purpose specifically a study focusing on the evaluation of the Digital Library; and
5. Further study maybe conducted regarding the evaluation of the Knowledge Center.



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