
Influence of Information Literacy skills in accessing agricultural information: with special reference to paddy farmers of Ampara district, Sri Lanka

Mohamed Majeed Mashroofa

Senior Assistant Librarian, South Eastern University of Sri Lanka
mashroof@seu.ac.lk; mashroofahameem@gmail.com

Wathmanel Senevirathne

Librarian, Open University of Sri Lanka
wsene@ou.ac.lk



Copyright © 2014 by Wathmanel Senevirathne and Mohamed Majeed Mashroofa. This work is made available under the terms of the Creative Commons Attribution 3.0 Unported License: <http://creativecommons.org/licenses/by/3.0/>

Abstract

Access to information plays crucial role in getting best agricultural products with some other factors such as soil, weather, biochemical products and their application. Several types of information are required by farmers of Sri Lanka for agricultural activities. This study focuses on the relationship of information literacy and the enhanced access to agricultural productivity. Therefore, this research aims to determine the information literacy level of paddy farmers of Ampara district in Sri Lanka in accessing agricultural information and explores how much this support the enhanced agricultural productivity. Stratified random sampling technique was used to select sample paddy farmers of Ampara district. 57 farmers were selected as the sample from all nineteen D.S. divisions of Ampara as three from each division. Survey method was used to collect data for this study. Questionnaire and Interview were used as research instruments. District Officer of Agriculture was interviewed and farmers were administered with questionnaires. Result was analyzed mainly quantitatively by using SPSS and Mini Tab. Qualitative analysis is also carried out. This study resulted that majority respondents preferred verbal communication, print sources and the use of computer and internet is reported poor. Communication gap, poor communication services, lack of libraries, lack of information literacy skills, poor infra structure and inadequate extension services might have caused poor access to information. Department of Agriculture under Central government and Agrarian Services Board under provincial ministry serve to these farmers as much as possible to provide information. However the information received by farmers indicated that it is not to the expected level. Therefore, it is concluded that government and local authorities should develop the existing services, information and communication systems to facilitate the farmers to access relevant information on time in order to gain best agricultural productivity. Though the perception of farmers indicates that they are information literate, facts and information related to format, mode and sources they preferred shows that these farmers are not much skilled on information literacy. This study recommends educating the farmers on access to information. Information Literacy should be taught to the farmers from the grass root level

Key words: Agricultural information, Information Literacy, Agricultural Productivity, Paddy farmers, Ampara, Sri Lanka

Introduction

Sri Lanka is an island located in the Indian Ocean. The literacy rate of male, Sri Lanka is 93.2% while female is 90.8% and an average of 91.9% in 2012 (Central Bank Report, 2013). The main occupation of people in Sri Lanka is Agriculture and the principle agricultural production is paddy. Ampara district is in Eastern part of Sri Lanka which is one of the 33 electoral districts of Sri Lanka. Considering the total paddy production of Sri Lanka, Ampara catches the second place where 1067,000 (Central Bank Report, 2013) Hectares of land is utilized for paddy cultivation. According to Census and population statistics of 2012 the labour force of Ampara is 648, 1000. Among them 81% are from rural areas whose main occupation is paddy cultivation and 19% only from urban areas. This study focuses on paddy farmers only as the majority civilian of this district engage in paddy farming.

Though it is accepted that agricultural production depends mainly on labour, land and capital, information plays a crucial role in the quality and quantity of agricultural production and most importantly regarding the food security. However it was observed that the policy makers as well as farmers are not seriously concern the crucial role played by the relevant and timely information. Farmers need information to identify the cost, storage, usage, varieties of newly introduced seeds, pesticides, weedicides and banking, weather and other information in order to get maximum yields and best production. This study explores the sources and formats of information disseminated to paddy farmers and their utilization in relation to their information literate level, educational level, age and gender.

Background of Information systems and services in the district selected

All districts in Sri Lanka have two authorities which control agricultural activities; Department of Agriculture and the Agrarian Services Board.

Department of Agriculture operates under central government and has an office in each division and the services to the community are provided through agriculture extension centers. Ampara division also has a District Office of Agriculture and under which there are four segments namely Uhana, Damana, Addalaichenai and Sammanthurai served by 25 agriculture extension centers covering all nineteen Divisional Secretariat (D.S. division) areas. D.S. division is a small administrative unit of Sri Lanka and each district has many D.S. divisions. Ampara district has nineteen D.S. divisions. These extension centers have Agricultural Instructors (A.I.) to provide farmer training programmes, field trials, demonstrations and other services such as agro-chemicals usage, introducing new variety of seeds, new technologies, entrepreneur's development etc. These officers use print, audio, video and multimedia formats of information and even word of mouth communication. Under inter provincial set up island wide major irrigation scheme is also maintained and served by the district office of agriculture.

In addition, there is Agrarian Services Board (ASB) to assist farmers in all agriculture related aspects. Agrarian services Board is under provincial Ministry of Eastern Province which serves

for the development of Agriculture. In Ampara, Dehiattakandiya, Mahaoya, Padiyathalawa , Lahugala and some other highland areas are served by A.S.B. The agrarian services board provides minor tanks maintenance; monitor the paddy lands under minor tanks, paddy land registry and other inputs such as fertilizer, pesticides and other chemical products etc. The board links with private agro-chemical companies in introducing and using the fertilizers and other chemical products at a moderate and acceptable level. ASB have established agents one for each D.S. division. Government of Sri Lanka supplies fertilizer to farmers under a subsidy that is nearly 10% of the total market price. This services also facilitated by the A.S.B.

Special task initiated by the Agricultural Department of Sri Lanka is that they have produced and maintain a database named “Agriculture Information Management System (AgMIS). This contains information on food crops commercially cultivated their extent, production or yield forecast, including the contact details of the farmers and officers involved. Nevertheless this database has not included information of all districts hence not comprehensive.

Hector Kobbegaduwa Agrarian Research Institute (HARTI) plays a crucial role in agricultural research and disseminating the information to researchers, academics and general public. They support the researchers to generate information as well as organizing and managing information systematically. They provide research and trainings, consultancy services, publishing research findings in journals etc.

Universities with Agriculture Faculties and Post Graduate Institute of Agriculture of University of Peradeniya create agriculture and related knowledge through their undergraduate and post graduate research. They introduce new varieties of seeds, recommends best fertilizers, usage techniques, pest and weed control mechanisms and appropriate post harvest technologies etc.

However, agricultural information service system in Sri Lanka should be investigated to identify the relationship with agricultural productivity as it directly relate with economic growth.

Preliminary discussion with farmers of Ampara district revealed that access to information is still difficult; they do not get specific information on time and they still prefer conventional verbal communication method that is ‘word of mouth’, on field instruction by the extension officers as effective mode of communication to gather appropriate information.

The farmers do not have a chance to meet extension officers very often (officer assigned from the agricultural department is Agricultural Instructor - AI) as one AI is responsible for attending 4000 farm families. District Officer of Agriculture stated that the standard is 750 farmers to one AI, but in Sri Lanka the ratio is 1: 4000 which is nearly 6 times higher than the standard and this is the major reason that hampers delivering agricultural information by extension services to the farmers on time.

Problem Statement and Significance of the Study

As far as Sri Lanka is concern dissemination of agricultural information is mainly carried out by informal communication channels as mentioned above. Preliminary discussion with some farmers indicated that the information is not disseminated to them through a formally established system. It is questionable that whether appropriate and timely information and important research findings are delivered to farmers who are the end users of agricultural information systems. However the exact reasons for shortage of proper and timely information access of the paddy farmers should be identified and measures have to be taken to improve access to information.

In this scenario it is important to investigate the status of dissemination of Agricultural information to the paddy farmers in Sri Lanka as per their desired formats to propose or suggest remedial solutions to bridge the information gap that exists between paddy farmers and agricultural information bases. It is also paramount to understand the level of information literacy among them as without which even most efficient information system will be underutilized.

Objective of the study

This study aims to determine the information literacy level of farmers in accessing agricultural information to support in obtaining best results in agricultural productivity. In addition, this study explores the information sources and services provided to farmers and analyses the factors that associated with accessing agricultural information.

Methodology

This study is conducted using two types of populations. The first one is paddy farmers covering all nineteen D.S. divisions of the selected district (Ampara). Second is the officers in-charge for delivering agricultural services. Stratified random sampling technique was used to select sample from the first population. 57 farmers were selected as the sample from all D.S. divisions of Ampara and three from each division. Survey method was used to collect data for this study. Questionnaire and Interview were used as research instruments.

District Officer of Agriculture was interviewed and farmers were administered with questionnaires. Result was analyzed mainly quantitatively by using SPSS and Mini Tab. Qualitative analysis is also carried out.

Literature Review

Importance of Agricultural information

Agricultural production depends on dissemination and accessing relevant information on adoption of new production technique, application of agricultural input, decision making on markets, prices and methods of water conservation, soil, new varieties, seeds and other resources.

Zijp (1994) identified some factors for why information is not reached to the rural people. Those are poor educational level, lacking adoption of innovations, lack of skills, human involvement, political and social barriers. Considering Ampara 81% of labour force are rural people and they might have influenced by some of the factors indicated by Zijp (1994) and some other factors too. Exactly these should be identified to find solutions for enhancement of information systems and effective and efficient access to agricultural information by farmers.

Information Literacy of farmers

Literacy level of the civilians was considered as important criteria to evaluate a nation's development basis on education. According to Encyclopedia of Americana (1996) Literacy is defined as "able to read and write". Sri Lanka is proud of the literacy level of its citizens. A person is literate when one can both read and write with understanding a short simple statement on his/her everyday life (National Literacy policies, Sri Lanka). Sri Lanka has a highest literacy rate in South Asia. However, it is questionable that how many of them are information literate.

Information Literacy is the term first introduced by Paul Zurkowski, president of the information Industry Association (IIA). He described information literate individuals as people "trained in the application of information resources to their work"(Patricia, 1999). She further described that people who have learned techniques and skills for utilizing the wide range of Information tools as well as primary sources in molding information solutions to their problems. After that many more definitions have been describing the concept of Information Literacy and information literate persons. This study is based on the definition given by Association of College and Research Libraries (ACRL) in 2000. Accordingly, Information Literacy is defined as 'a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information'(ACRL, 2000). An information literate individual is able to;

- determine the extent and nature of information needed
- access the needed information effectively and efficiently
- evaluate information and its sources critically
- incorporate selected information into one's knowledge base
- use information effectively to accomplish a specific purpose
- understand the economic, legal and social issues surrounding the use of information, and access and use information ethically and legally.

Based on this definition variables were identified to measure the IL skills of farmers.

Riesenberg (1999) has carried out a study which explored the preferential method of information transfer of paddy farmers receiving information which is exactly as Zijp (1994) did. Nine distinctive methods were mentioned and their preferences were studied. The most the rural farmers preferred that on farm demonstrations, tours and field trips.

Involvement of Public Libraries

Aina (2006) mentioned that public librarians should be able to answer simple queries on Agricultural problems. They should link with agriculture centers and extension services. Katunmoya (1992) in Aina (2006) mentioned that public libraries should liaise with government ministries or department of agriculture to collect pamphlets, posters, booklets on issues like health, sanitation, agriculture and civil rights.

In case of Sri Lanka, information need of farmers have been studied but scarcity of literature on 'information literacy of farmers' indicated that few researches have been carried out on this aspect. However, Seneviratne (2007) carried out a research on Information Literacy of rural Sri Lankans. She says that modern society is said to be highly information dependent and almost all social activities nowadays are information, knowledge and learning oriented. Information society is a term used for a society in which the creation, distribution and manipulation of information has become the most significant economic and cultural activity. Her study revealed that though higher language literacy rate is observed in Sri Lanka, IL skills of the people are poor. She has recommended a community information literacy model for rural Sri Lanka.

From the reviewed literature and conceptualizing the issues related with the current study the authors have created a conceptual framework.

Conceptual Frame work

Variables identified from reviewed literature and the research theme are as follows.

Independent Variables: Realize, Locate, Access, Evaluate, Utilize and Dissemination of Information.

Intervening or Mediating Variable: Information Literacy

Moderating Variable : Educational level, Age, Gender,

Dependent Variables: Enhanced Agricultural Productivity

By using these variables a conceptual model and hypotheses were created to test the relationship between the variables.

According to ACRL's definition and framework, Information Literacy is a combination of the skills such as realizing information need, locating information sources, accessing information, evaluating the retrieved/obtained information and utilization of information. Creation and dissemination of information is also felt necessary.

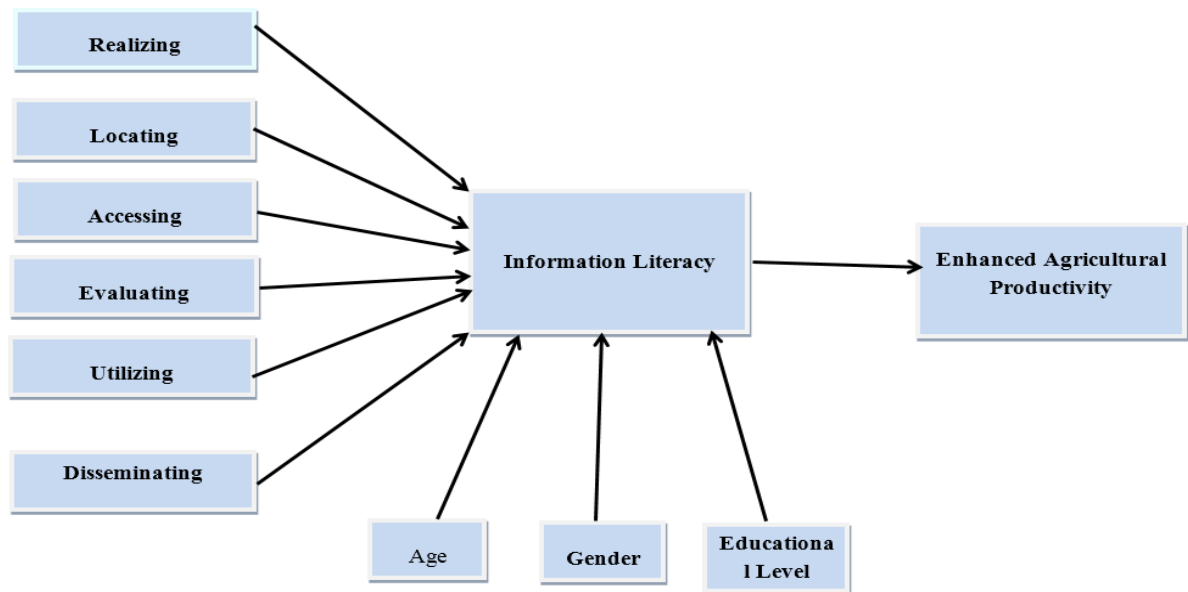


Figure 1: Conceptual Model of this study

If a person has the above all skills he can be assumed as information literate. An information literate person is able to identify the problems and by using his skills on realizing, locating, accessing, evaluating and utilizing information, he would be able to solve the problem. This causes enhanced agricultural productivity. Therefore, enhanced agricultural productivity depends on information literacy level of paddy farmers. [Other agriculture related factors leading to enhanced agricultural productivity, such as soil, temperature, salinity, irrigation fertilizers, etc. are not included in this study]. Age, gender and educational level of farmers moderate the information literacy skills of the farmers. Young people are able to use computer and internet resources, audio, video materials other than print. So age can moderate IL skills. Similarly educational level also moderates IL. If a person is more educated he may have some more skills than uneducated. In rural areas gender may also influence as females are not much exposed to education and for other computer and internet usage. Therefore these three variables are found as moderating effect on IL. Though there could be many hypotheses created, only two hypotheses were created and tested in this research study which were considered most important.

H₁ : Information Literacy skills positively affect the agricultural productivity

H₂ : Access to information positively related to agricultural productivity

Results and Discussion in brief

Respondent profile

Altogether 57 questionnaires were administered to farmers of Ampara district and 45 filled questionnaires were returned at a response rate of 78.94 %. 100% of them are male. Considering their age group majority 17(37.8%) fall between 31-40 years old. Eight respondents (17.8%) are between age 20-30 years and 09 (20%) falls between 41-50 as well as 51-60. Only two of them (4.4%) are more than sixty years. Table 1 shows the educational qualification of the respondents.

| Description | Frequency | Percentage |
|-------------|-----------|------------|
| Grade 8 | 13 | 28.9 |
| GCE O/L | 18 | 40.0 |
| GCE A/L | 12 | 26.7 |
| Graduate | 1 | 2.2 |
| Other | 1 | 2.2 |
| Total | 45 | 100.0 |

Table 1: Educational Qualification of Farmers

18(40%) of them are G.C.E. Ordinary level (O/L) qualified and 12(26.7%) are G.C.E. Advanced level (A/L) qualified and one (2.2%) has graduated and another one (2.2%) has some other qualifications. Only 13(28.9%) respondents are less than O/L that is up to grade eight.

Nature of Cultivation

Their main occupation is farming and a few of them are government servants together engaged in farming. Nearly 6(13.3%) of the respondents are engaged in Chena and vegetable cultivation in addition to paddy cultivation. They have 36(80%) owned paddy fields and 09 (20%) do not have own land, they use land by leasing from others. Considering the size of their paddy fields; 09(20%) have 1-2 acres, 13(28.9%) have 3-4 acres, 20(44.4%) have 5-6 acres, 02(4.4%) have 7-8 acres and only one respondent(2.2%) has more than nine acres. 29 (64.4%) get sufficient yield while 15(33.3%) has mentioned they do not get expected amount of yield and one did not respond to this question. During cultivation majority farmers 25(55.6%) said that they several times faced lost due to bad weather such as drought, flood and other causes such as pests. Another 17(37.8%) do not know proper post-harvest technology and they 23 (51.1%) have lost after harvest due to the affect of insects and worms.

Sri Lanka government provides them fertilizers under subsidy; they pay only 10% of the exact cost. Among the respondents 28(62.2%) get fertilizers under subsidy and 15(33.3%) mentioned that they purchase.

Dissemination of Information

Different types of information are required by the farmers to successfully perform agricultural activities, to obtain best yield and sell for best market price. Dissemination of relevant and proper information on time is highly important. A series of five scaled Likert type question was given to measure how speedy they are in receiving information about new variety of seeds, techniques of using fertilizers, germicides, pest and pesticides, irrigation weather, plant disease and control, subsidy, bank loans and market prices etc. Results displayed in figure 2.

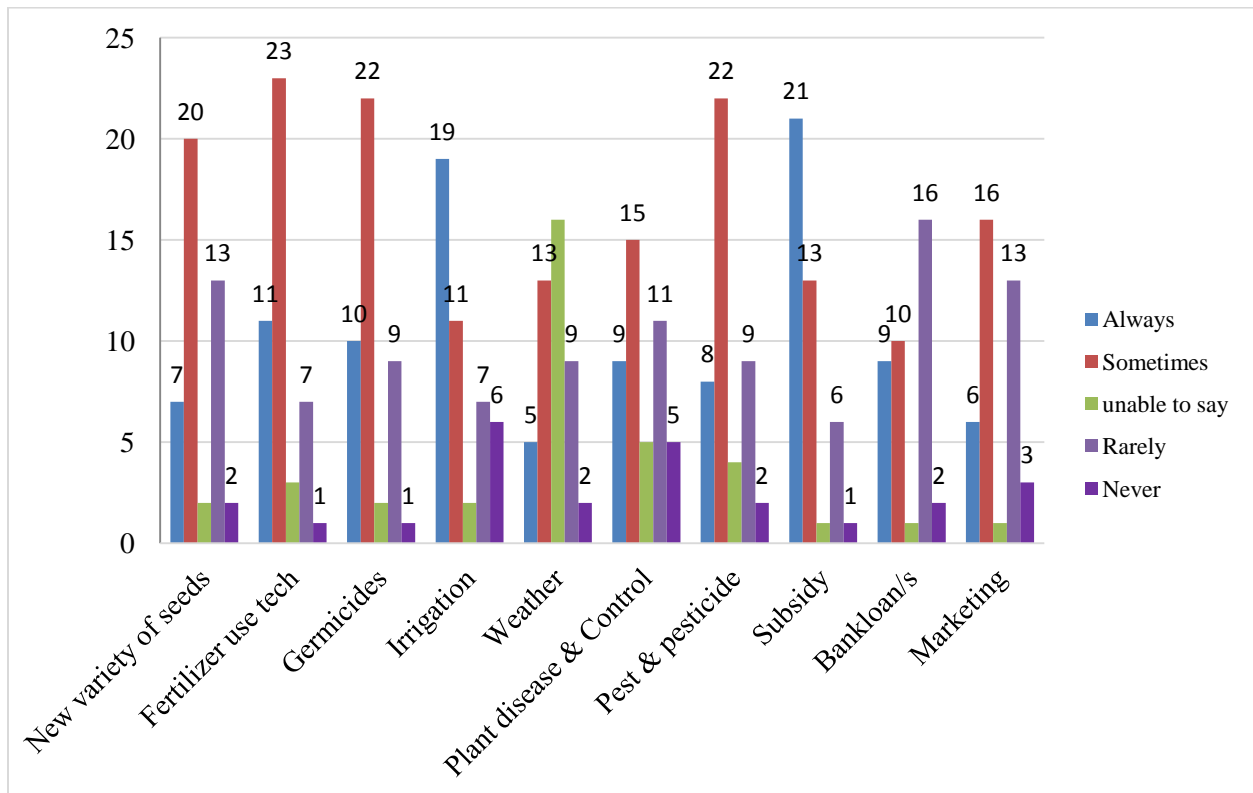


Figure 2: Information provision in various agricultural issues

Majority farmers 19 (42.2%) and 21 (56.6%) ‘always’ get information on time about irrigation and subsidy respectively, while they ‘sometimes’ get information about new variety of paddy seeds 20 (44.44%), type of fertilizer and use methods 23(51.1%), application of germicides 22(48.88%), about pests and pesticides 22(48.88%) as well as about plant diseases and relief methods 15(33.33%). Majority of these farmers rarely and never get information about bank loans 18(40%) as well as marketing of agricultural products 16(35.55%).

Format Mode and Agents of Information

To further explore the format, mode and the agent/s of information, they were first asked that from whom they are getting information. According to the survey result shown in Figure No.3;

majority respondents 18(40%) get information from community leader. Informal groups and associations are created by farmers and they assign this leader. In their language it is called as “Vaddanai”. They are responsible for the cultivation of a particular area of paddy fields and they closely associated with Agrarian services board and informed the group members regarding irrigation (canal opening and closing from minor & major tanks), fertilizers and pesticides, subsidy, periods for starting plough and cultivation etc. Another 8(17.8%) respondents mentioned that they get information from the Extension Service centers. Six of them (13.3%) get information directly from Agrarian Service Board and 7 (15.6%) of respondents get information from other farmers informally. Other Social Welfare Societies and Public libraries also provide some information, that is 2(4.4%) by each.

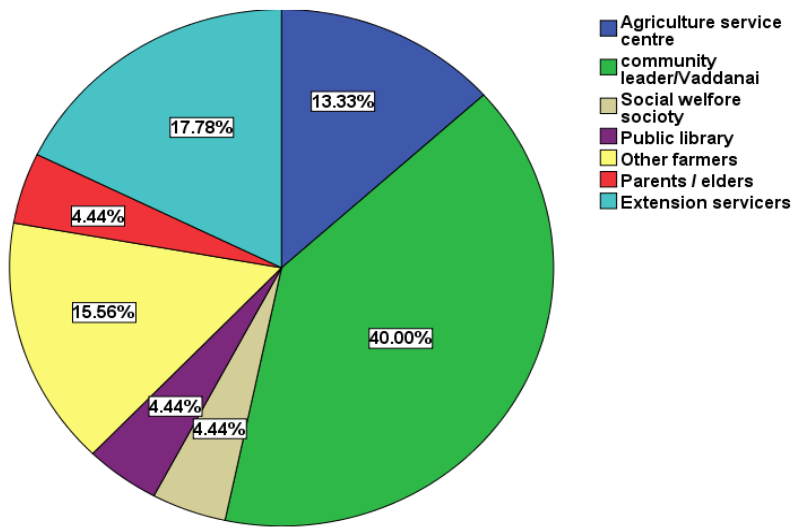


Figure 3: Agents of agricultural information

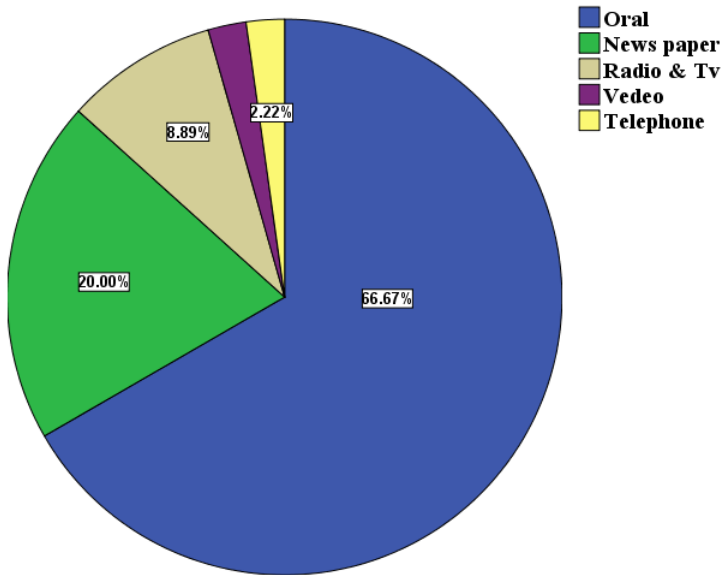


Figure 4: Format of information received by paddy farmers

The format of information was studied further and the figure No. 4 shows the result. Among the respondents 30(66.7%) wish oral communication and 9(20%) likes news paper, too. The other modes such as radio, television, telephone and video are comparatively less likeliness.

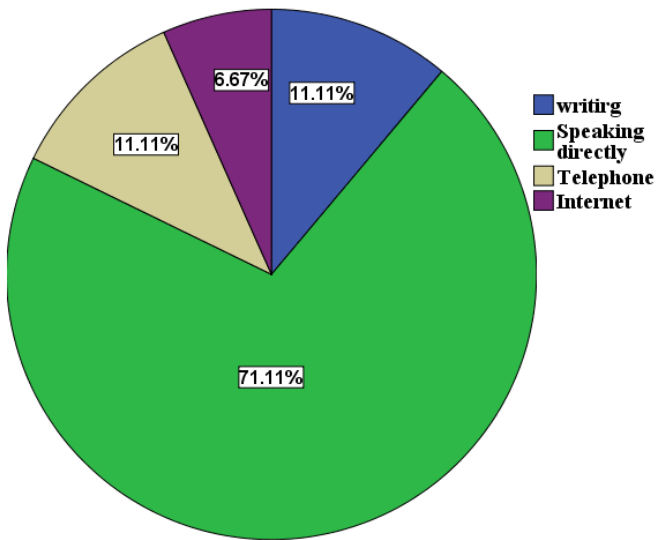


Figure 5: Shows the paddy farmers' willingness in the mode/method of communication

It was further inquired that which methods are mostly preferred by them to communicate and disseminate information. Results displayed in figure No. 5. Among the respondents 32(71.1%) prefers speaking directly and only 5(11.1%) likes writing and telephone conversation. It is good to know that only 2(4.4%) and 1(2.2%) wish Internet and Satellite mode of communication, too.

Information Sources used by paddy farmers

Information sources which are used by farmers to obtain information also were identified. Results are shown in figure No. 6.

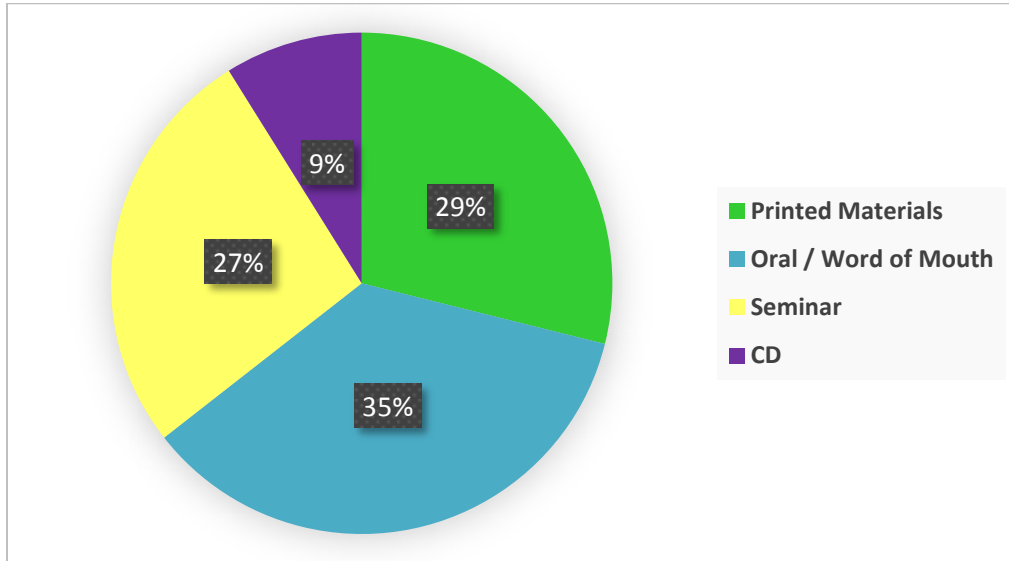


Figure 6: Information sources used by the paddy farmers

Figure No. 6 shows that among the respondents 16(35.5%) oral or word of mouth sources while 13(28.9%) use printed materials and 12 (26.7%) said they use to go seminars and meetings organized by Extension Centers and other Agro-chemicals companies as information sources and 4(8.9%) used CD ROMs. None of them have responded for electronic resources other than CDs.

Computer and Internet usage

Computer and Internet use is improving day by day even in rural areas of Sri Lanka. Computer and Internet use of the farmers also studied to check whether they are computer literate. Only 8(17.8%) of them use computers and other 37(82.2%) do not use. It was further explored that where do they access computers. Among the 8 respondents who use computers only 5(11.1%) have access at home and other 3 (6.7%) access at the library.

Information Creation by farmers

These farmers have the ability to access, use and disseminate information. However it is important to identify whether they create information.

It is noteworthy to know that 11(24.44%) have mentioned that they have created knowledge and disseminated to other farmers, though the majority 34 (75.56%) were not involved in this process. One of them has mentioned that if any new disease or pest is found at paddy field he informed this to other farmers to be vigilant by contacting the ‘Vaddanai’. Sometimes he sent to news paper with or without photo. Another one mentioned that he has prepared a notice and

distributed to farmers about using organic fertilizer. It is appreciated that they are creating and disseminating knowledge.

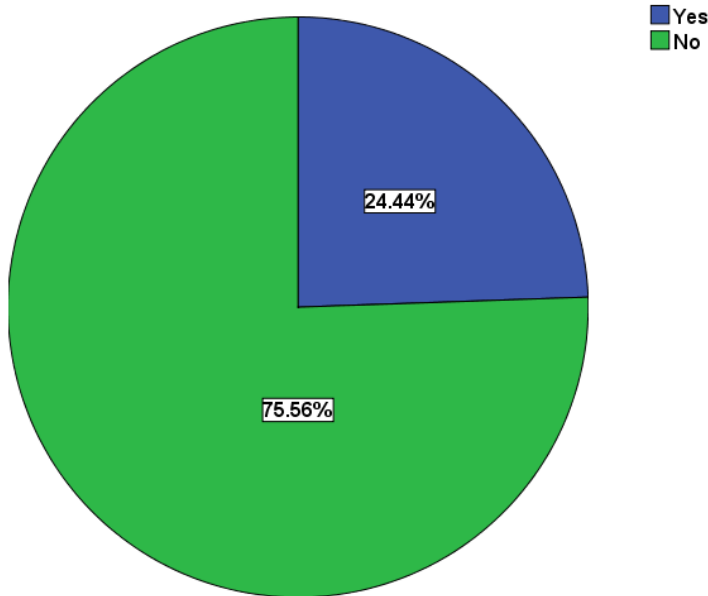


Figure 7 : Shows the percentage of farmers involved in information creation

Information Literacy level of the paddy farmers

To test the Information Literacy (IL) level of the farmers their perception were explored by using five point Likert scale questions. Agreeing level of the respondents were given value from 1 to 5 ranging from strongly agree to strongly disagree. IL was determined by using six variables and questions were prepared to measure each variable. Out of the six variables three were measured by using 2-3 elements; for each element one question was prepared. The variables are as follows.

- Realizing Information Need ($R = R1 + R2$)
- Locating Information Sources ($L = L1 + L2$)
- Access to Information (A)
- Evaluate Information (E)
- Utilizing Information (U) and
- Creating and Disseminating Information ($D = D1 + D2$)

Eigen value was calculated by using descriptive statistics and Screen plot to measure the variance of R1, R2 and L1, L2 and D1, D2. For all three constructs Eigen value showed very small variance so it was determined to take the mean value for each construct.

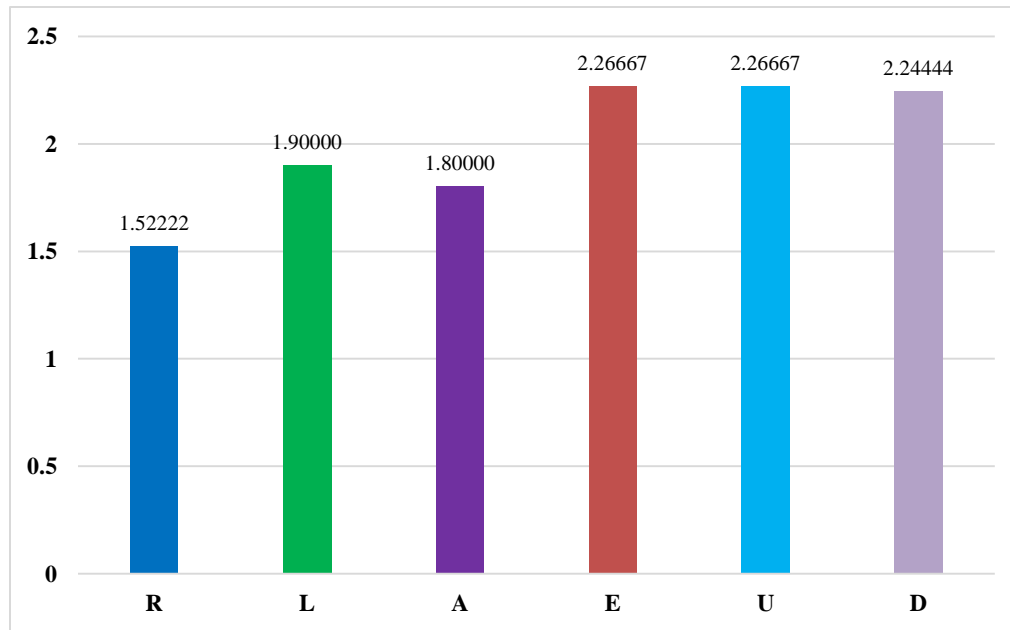


Figure 8: Mean value for each variable

The mean values for each variable R, L, A, E, U and D falls between 1.52 to 2.46. This indicates that the respondents agree that they can realize when information need arises, can locate information sources, access, evaluate, utilize and disseminate information.

Then the average mean of these entire variables were calculated to find the mean value of IL. It was 2.0 at 95% confidence level. This result indicates that the respondents agree that they are information literate.

Testing of Hypotheses

The main and important hypothesis IL skill positively affect the enhanced agricultural productivity was tested by using Pearson Chi-Square test. Because IL is the governing factor of this study while some other factors also important for enhanced agricultural productivity. For agricultural productivity the amount of 'yield' was considered. IL is a multivariate analysis of all other six dependent variables. The Chi- Square value was 0.760, degrees of freedom 2 and the p-values is 0. 684. This result indicates that there is no significant association between IL and enhanced agricultural productivity.

The second hypothesis relationship between access to information and enhanced agricultural productivity was also tested. The Chi-Square value is 9.079, degrees of freedom 3 and P value is 0.182 indicate that there is a strong and significant relationship between the two variables. It is resulted that obtaining best yield highly depends on access to information.

Opinions of the respondents

Respondents have expressed their views for the open ended questions. Some people expressed that they have never seen the AI s in the field and information are not disseminated them on time. Some farmers have mentioned that they do not get information from the extension service centers or Agrarian Services Board and they usually get information informally, so they are not confident and not certain about the information received. They mentioned that sometimes illegal fertilizers and pesticides come to market and at least these extension service personals can initiate action to report the authorities regarding this type of observations. They have further indicated that they prefer new varieties of seeds which could yield good harvest. They are much eager to get more information on ‘how to get more yield’, ‘post harvest techniques’ and about ‘good market price’. The study indicates thus the services of extension centers and agrarian services are not up to the satisfactory level in delivering information to the farmers. These farmers want to apply new techniques in their agricultural activities to get best yield, but so far no one has given instructions related to new technologies.

They do not have facilities to access information electronically. At least the extension centers do not have computers and internet connection for the use of these farmers. They mentioned that even if they access information through internet they face language problem. The farmers face enormous problem through human – elephant conflict is increasing day by day and paddy fields are destroyed by the elephants and relevant authorities do not bother about this and information is not disseminated regarding this due to lack of facilities”. They grieved that when they are at paddy field cell phones do not work due to shortage of telecommunication coverage.

Conclusions

The study explored major issues relating to accessing agricultural information by rural farmers. Department of Agriculture under Central government and Agrarian Services Board under provincial ministry serve to these farmers as much as possible to provide information. However the information received by farmers indicated that it is not to the expected level. Information on new variety of seed paddy and new technologies can be mentioned as very essential and most important requirement of the farmers.

Though the perception of farmers indicates that they are information literate, facts and information related to format, mode and sources they preferred shows that these farmers are not much skilled on information literacy. Majority preferred verbal communication, print sources and the use of computer and internet is reported poor. Even the radio, television, telephone is also less used. However, they wish transformation in the application of new technology and the mode of communication. Though according to this study, IL skills are not related with enhanced agricultural productivity, access to information has a very significant and positive relationship with enhanced agricultural productivity. It is also evident that access to information is a crucial factor to get best agricultural productivity with other agriculture related factors. Communication gap, poor communication services, lack of libraries, lack of information literacy skills, poor infra

structure and inadequate extension services might have caused poor access to information. Therefore, it is concluded that government and local authorities should develop the existing services, information and communication systems to facilitate the farmers to access relevant information on time in order to gain best agricultural productivity. They expect training, field visit and advisory services of officers' in-charge, problem solving at the problem point (the paddy field) and assistance for input supplies and marketing.

This study also explored the perception of farmers on their information literacy level and this may however not showed the actual status. Therefore IL skills of these farmers should be tested by further research with a proper tool. Measures have been recommended to eradicate the information access pitfalls in order to attain the best agricultural productivity.

Recommendation

This study recommends educating the farmers on access to information. Information Literacy should be taught to the farmers from the grass root level as access to information is one of the element of IL. Extension service centers can link with public libraries and community centers to provide information to farmers as they are unable to cater all farm families alone. Government has to take initiatives to appoint more Agriculture service officers, agriculture instructors, field officers etc. and proper monitoring their works is also important. Audiovisual teaching aids, good presentations by using new technology, VCD/DVD use on agricultural information access, arranging exhibitions and handbills and publications are recommended as useful in addition to verbal instructions. Best telecommunication systems are required to transfer important information on time. Public libraries can organize classes/seminars to the paddy farmers in collaboration with extension service centers and agrarian service personals in order to provide agricultural information. Public librarians also can play as mediator role between farmers and agriculture service officials in delivering agricultural information. Agriculture Information System (AgMIS) should be further developed. District Offices can compile information and develop the database in order to amalgamate with central AgMIS of Sri Lanka. Further research has to be extended in other districts of Sri Lanka.

Bibliography

Association of College and Research Libraries (2000), Information Literacy competency standard for higher education, ACRL, accessed on November 15,2008 [Available at <http://www.ala.org/acrl/ilcomstan.html>]

Aina, L.O.(2006), Information provision to farmers in Africa: the library- Extension Service Linkage, Proceedings of the 72nd World Library and Information Congress. Available at <http://www.ifla.org/IV/ifla72/index.htm> Accesses on 08th February, 2014

Encyclopedia of Americana, Vol. 17(1996), Grolier incorporated, Danbury, p.559

Kiplang'at, Joseph (1999), An analysis of the opportunities for It in improving access, transfer and the use of agricultural information in the rural areas of Kenya, Library management, Vol.(20),No.2. Available at <http://www.emerald-library.com>, Accessed on 17th February 2014

Riesenberg (1999), Farmers' preferences for methods of receiving information on new or innovative farming practices

Seneviratne, W. (2004) Laying paving stones for a knowledge Society: Community information literacy (CIL) and an analysis of barriers to upgrade CIL in rural Sri Lanka in proceedings of World Library and Information congress,10th IFLA general conference and council.

Seneviratne, W. (2006), behavioural pattern of the rural citizens in seeking community information and its impact in calculating Channel Dependency rate, Information Studies, 13(4). Available at <http://www.indianjournals.com/> Accessed on 19th February 2014

Patricia, S.B.(1999) Take II- Information literacy: revolution in education. Reference Services review , 27(3), pp. 271-275

Patricia D.M..(2001) Assessing information literacy among undergraduates: a discussion of the literacy and the university of California berkerly Assessment experience.

Sri Lanka Socio |Economic Data (2011), Central Bank of Sri Lanka, Vol XXXIV.

Zijp,W.(1994), Improving the transfer and use of agricultural information: a guide to information technology, World Bank Discussion papers, Washington,D.C.

Zenghui, X. et al(2007), development of agricultural information service system and its interaction with agricultural economic growth-intensive: the case from China, International conference on Service Systems and service Management of IEEE. Accee=ssd on 19th February, 2014 Available at <http://ieeexplore.iee.org>