

Communication and Information Technologies for Education, Agriculture and Rural Development in Sri Lanka

Ms. Cader Jasmin

KM/STR/Muslim Madhya Maha Vidyalaya, Sammanthurai
(cm.thowfeek@gmail.com)

Abstract

We see the letters Communication and Information Technology, everywhere. Communication and Information Technology stands for Information and Communication Technology. The concepts, methods and applications involved in Communication and Information Technology are constantly evolving in our daily lives. Communication and Information Technologies providing new access and approaches for education, agriculture and rural development and different communities are getting benefit from these technologies. This paper presents a review of the innovative research in Information and communication technologies for education, agriculture and rural development in Sri Lanka and how far it has contributed. The other aim is to ponder over the achievements and the failures of Communication and Information Technology in the sustainable development march. This research focuses on the scope of Communication and Information Technology in education, agriculture and rural development in Sri Lanka, the opportunities and the challenges that can come along.

Key Words: Education, Agriculture, Rural Development

Introduction

Communication and Information Technologies defines as a systematic way of transferring, storing, producing and recovering the material such things could be in text, videos, sounds, images and communication and information technology are related with Communication and Information Technology.

In Sri Lanka Communication and Information Technology has impact in sector of life and provided lot of benefits and advantages to society. Communication and Information Technology has brought revolutionary changes in education and agriculture sectors the investments of information communication technologies in education have also provides positive changes and improves the standard of education globally. By implementation of Communication and Information Technology in education sectors make new ideas and creativity to produce innovative things there is need to provide such facilities in Sri Lanka for development of education.

In the perspective of rural development, it includes the financial, physical and human resources and for social as well as economic development of rural communities. Communication and Information Technologies tools last many years are connect with the education as well as different sectors of the society where people are getting benefit from this these advanced technologies in their fields.

The use of information technologies especially in rural areas was very low and facilities of internet were not available in rural people which are very important tool for rural development. By use of information communication technology such as internet is more effective and important information can transfer and share to rural communities and by these information rural people can get good benefit and knowledge.

Few decades before the role of mass media were focused on rural development and radio and television one of the best source of dissemination information among people and brought a social change but nowadays information communication

technology has brought a revolutionary change in rural development where most of technological facilities are available but still there is lack of knowledge and information among communities have not provided fruitful results.

Now communication and information technology has become very important in all activities. On the other hand, Education, Agriculture and rural development are more contributors to the economy of the country.

So, for my research study purpose I'm taking the sample from Communication and Information Technology center, farming community, Agriculture University student, school and rural people. Now Communication and Information Technology is changing day by day. So Communication and Information Technology has become the one of the important resource of the country.

Research problem

Communication and Information Technology has become an integral and accepted part of everyday life for many people. Communication and Information Technology is increasing in importance in people's lives and it is expected that this trend will continue, to the extent that Communication and Information Technology literacy will become a functional requirement for agriculture, education and rural development. Agriculture, education and rural development are very important to the country because it has contributed a lot to the country's national income. Communication and Information Technology helps to develop the country, so there is a need to identify of the Communication and Information Technology in agriculture, education and rural development.

Objective of the study

- To find out how Communication and Information Technology can facilitate in rural development
- To identify the Efficient Communication and Information Technology usage for Education
- To help farmers with value based information to improve their productivity and provide timely information

- To identify the benefits and difficulties of using Communication and Information Technology in the sectors
- To identify major determinants of the Communication and Information Technology

Literature review

This literature survey discusses about the need for transformation to Communication and Information Technologies from traditional governance. In addition, it discusses about the existing approaches, methodologies, technologies, factors and strategic frameworks. Further, literature on agriculture implementation in Sri Lanka in the field of agriculture, education and rural development is presented. Further to this, we analyze some of the successful Sri Lanka agriculture projects and list their strengths and weaknesses.

This analysis leads to a conclusion on various factors contributing to success of agriculture and the strategic framework for Sri Lanka agriculture, education and rural development. This study specifically addresses those agriculture initiatives that have a direct impact on the rural population and in which the rural people derive benefit through direct transactions with the agriculture services.

Use of Communication and Information Technologies will improve the quality and standards of existing agriculture related governance products and services being provided. This literature survey outlines the conceptual and empirical case for the use of Communication and Information Technologies in Sri Lanka's rural development. The literature survey was done going through literature of several rural Communication and Information Technologies initiatives research papers and project survey papers.

We discuss the lessons of some of the efforts underway in Sri Lanka. The goal is not to provide an exhaustive description or analysis of any single organizational effort, but to use the conceptual framework of the previous section to bring out common features as well as differences and use them to make the model framework for Communication and Information Technologies in agriculture, education and rural development in Sri Lanka.

Methodology

The data is collected through the close ended set of questionnaires given to sample of farmers of Sri Lanka. Random sampling is used to select the respondents for the study. Overall 100 questionnaires were collected to carry out the investigation. Questionnaires have been designed for the Communication and Information Technologies centers, farming community, Agriculture University Staff, to study the need of Communication and Information Technologies in the development of agriculture, education and rural development.

Two schools were selected to process of data collection. Thus research instruments (questionnaires, individual interviews and focus group interviews) subjects of the research in educational institutions of three levels (the head teacher, teachers, students, technical staff) and a team of investigators (experts and trade union representatives) are diversified to ensure the validity and reliability of the data. The respondents were not well familiar with the Communication and Information Technologies and its use in agriculture. Most of them haven't even heard about the agriculture site of Sri Lanka. The present study is basically an analysis of agriculture, education and rural development projects in Sri Lanka and the role of Communication and Information Technologies in it, with reference to developing a strategy for successful implementation of Communication and Information Technologies in agriculture, education and rural development in Sri Lanka.

The data was collected through net, official documents, discussions, questionnaires and interview schedules. Face-to face interviews were most successful. We conducted a random survey of fifty of rural people of Sri Lankan and the other fifty included Agriculture University Staff. I am listing only a few questions from one of the questionnaires used, to give you the overview. One of the questionnaires asked the following questions:

	Yes(%)	No(%)	Can't say(%)
Do u think there is uptake problem in Communication and Information Technologies?	86	2	12
Inability of farmers to use Communication and Information Technologies	87	3	10
No perceived or economic benefit	89	10	1
To hard to use / unfriendly	81	8	11
Lack of technology infrastructure	88	1	11
Cost of technology	90	2	8
Fear of technology	85	12	3
Not enough time to spend on technology	80	17	3
Do u understand the value of Communication and Information Technologies	10	80	10
Lack of training	88	1	11
Personal impediments	75	20	5

Finding and Discussion

Communication and Information Technologies and agriculture development

Sri Lanka are facing many problems such as poverty, education, health and agriculture development issues and farmers have no information about the proper use of the pesticides as well as fertilizer in their crop. Similarly the participation among farmers created the gap. Nowadays Communication and Information Technologies have brought close to communities and empower the sources to poor farmers of different regions and increased their knowledge and information about agriculture technologies and provide information about market, weather customers preferences as well as chance of bargaining with buyers.

Communication and Information Technology have no particular target to enhance the agriculture production in rural areas or improve their productivity. In rural areas mobile phones can also play important role in enhance the capacity of rural people especially farmers and contribute their production of agriculture on national level. Information communication technologies could develop and provided access in rural areas for the development of agriculture, education and health issues. By use of these communication technologies the poverty can be reduced the rural areas of Sri Lanka. In the context of rural

development it could improve by identifying the strong position of the rural family as the centre of agricultural production in areas of poverty.

The remote areas communities are main source of agriculture production in Sri Lanka. Agriculture cultivation and harvesting facilities can encourage the rural communities for more production while lack of infrastructure, financial problems and disaster are big issues of rural and many other issues have significant impacts on agricultural production at the house hold, local and nationwide levels. By the use of communication technologies and government services the farmers can save the time, energy and money similarly they can connect to buyers for selling their product good and service. The mobile phone one of the best ways of communicates directly with market buyers and producers and could get information about weather, market use of pesticides and other agricultural related information from expert. The practices of Communication and Information Technologies tools could use for different projects for rural development and could promote the sustainable development in remote areas as well as by use of information communication technologies the poverty could reduce in Sri Lanka. The use of information communication technologies can introduce new approaches and ideas among rural people. Farmers can use new technologies for agriculture development and same time for education purposes. By information communication technologies rural empowerment and participation atmosphere can be created for rural communities.

Communication and Information Technologies cannot be specified only in agricultural development but similarly can improve the life of rural people and enhance their knowledge and by these farmers can increase agricultural production. One of the Communication and Information Technologies tool mobile phone can play vital role in the ability of poor rural communities to sustain and similarly increase their agricultural production and cultivation activities. There is need to introduce new policies to make empowerment of farmers and should reduce the gap among farmers and research officers similarly there is also need to make the linkages between farmers and market. Furthermore, it was showed that researchers and farmers have very much gape therefore in these

circumstances the Communication and Information Technologies can reduce the gape among farmers and researchers and market.

Information communication technologies most important tool is mobile phone by these farmers directly can obtain information from market about their goods and services and same time contact with metrological department for getting the weather information before starting the pesticides and fertilization in their crop. The e- service can play important role in education trainings and adoption of these new technologies can increase education system in rural development. Similarly the agriculture development also involves with information communication technologies.

Communication and Information Technologies access in remote areas of Sri Lanka and availability of infrastructure can increase the knowledge of agricultural information and farmers directly contact to brokers in market. Furthermore, there is need to plan, growth and make innovative in farms and should get advantage from Communication and Information Technologies and services.

Communication and Information Technologies and Education

Communication and Information Technologies in the context of education by many things and products education can spread through there are many things such as teleconferencing, email connecting system audio as well as video conferencing, radio, television and other methods can provide a lot of information from different regions of the world. Similarly Communication and Information Technologies also can Communication and Information Technologies can increase teaching, and administrative system of education.

Communication and Information Technologies also improve the quality of education in remote areas of Sri Lanka and could enhance the capacity of rural people in education which is better way for rural development. Different countries invest large of amount in development of different sectors in rural areas and improved the infrastructure but there is need to improve the education system of rural people. By Communication and Information Technologies many new technologies can be introduced for the development of education. By applying the Communication and Information

Technologies high quality of education can adopt in remote areas of Sri Lanka.

The adoption of Communication and Information Technologies tools in education can bring the revolutionary changes in the developed and Sri Lanka these technologies can reduce the poverty and improve the living standard of rural people. Communication and Information Technologies could spread in rural areas similarly can introduce new Communication and Information Technologies related courses in primary and secondary education system. Communication and Information Technologies access to education and information about health, weather, and use of pesticides can empower the rural society.

The practice of Communication and Information Technologies can contribute and generate new thinking and approaches in all sectors of daily life. Communication and Information Technologies also provide viable, creation in the world similarly Communication and Information Technologies have decreased old methods and provided an opportunities for everybody to access and can get information about education, health and development of agriculture as well as new innovations of the world.

Communication and Information Technologies are very important for Sri Lanka by these technologies the education system can be improved and the access of such technologies can enhance the value of training and development of people and professionals in their particular areas. By using Communication and Information Technologies lot of knowledge and information can share and disseminate among teachers and students of rural societies and can make different opportunities for rural people in Sri Lanka.

Furthermore, information communication tools can be adopted for increasing educational systems and expand policy formulations and applications of opportunities to work in a better way for education sector. One of the big problems of Sri Lanka is poverty where poor people cannot afford the communication technologies tools for their use, even government cannot purchase such kind of expensive material and infrastructure in remote areas of Sri Lanka.

Communication and Information Technologies are one of the powerful tools for increase the educational system in Sri Lanka and can provide easy access in formal and informal education system. The information communication technologies applications can also increase quality and strength the motivation and providing job opportunities and encouraging trainings and basic skills of instructor. There is no doubt that Communication and Information Technologies have brought awareness, knowledge and information among farmers and farmers can utilise these technologies for the improvement of the agricultural system for the rural development. These technologies increased agricultural production, processing and marketing and income of farmers.

Conclusion

Communication and Information Technologies growing day by day in Sri Lanka and getting benefit from these technologies in different sectors of development. Still there is lack of infrastructure and facilities in rural areas have no given appropriate development in agriculture and education sectors. Information communication technologies can spread in rural areas for education development computer centres, computer labs can established in remote areas of Sri Lanka where the trained teachers can transfer their knowledge and skills for the development of students and improve their skills. By using computer labs farmers directly can contact buyers and sellers for sell their goods and services lack of awareness and illiteracy also a problem among farmers most of them cannot use technologies. There is need for education of farmers regarding Communication and Information Technologies and its uses that farmers can get information about market, weather pesticides and seed.

In education sectors from primary level students should teach these courses for the increase the knowledge and information of students from basic. Teachers should provide trainings regarding Communication and Information Technologies and its importance for rural develo

References

Web Address;

- 1) http://en.wikipedia.org/wiki/Information_and_communication_technologies_for_development
- 2) <https://www.nae.edu>
- 3) www.e-agriculture.org/.../information-technology-and-communication
- 4) Interactive Educational Systems Designs Inc. (2012). National Survey on Mobile Technology for K-12 Education.
- 5) http://www.e-agriculture.org/content/book-communication_and_information_technology-agriculture-perspectives-technological-innovation
- 6) www.igi-global.com/journal/international-journal-communication_and_information_technology-research
- 7) http://communication_and_information_technologyupdate.cta.int/
- 8) http://communication_and_information_technology4d-in-srilanka.blogspot.com/
- 9) <http://www.chester250.org/4185/information-and-communication-technologies-for-development-in/>

Book

- 10) Molenda, M. (2008). Historical foundations. In M. J. Spector, M. D. Merrill, J. Merrienboer, & M. P. Driscoll (Eds.), *Handbook of Research on Educational Communications and Technology* (Third., pp. 3–20). New York, NY: Lawrence Earlbaum Associates.
- 11) Bates, A. (2005) *Technology, e-Learning and Distance Education* London: Routledge
- 12) Geer, R., & Sweeney, T. (2012). Students' voices about learning with technology. *Journal of social sciences*, 8 (2). 294-303
- 13) Beagle, Martha; Don Huges. "Social Networking in Education".
- 14) Molenda, M. (2008). Historical foundations. In M. J. Spector, M. D. Merrill, J. Merrienboer, & M. P. Driscoll (Eds.), *Handbook of Research on Educational Communications and Technology* (Third., pp. 3–20). New York, NY: Lawrence Earlbaum Associates.

Research article

- 15) Ammar Jaffari, (2006). Sustainable Development Policy Institute,"53rd Meeting of the Study Groupon Information technology and Telecommunication, July 2006.
- 16) Bhagwati, J. (2004). *In defence of globalization* Oxford, UK: Oxford University Press.
- 17) Chambers, Robert. (1983). *Rural Development: Putting the Last First*, Robert Chambers, 147. London: Longman,1983.
- Chariar, V.M. (2005), *Rejuvenating Traditional Knowledge Systems of India*" (unpublished).
- 18) Grimes, S. (2000). Rural areas in the information society: diminishing distance or increasing learning capacity *Journal of Rural Studies* 16(1), 13-21.
- 19) Khodamoradi, S., & Abedi, M. (2011). The role of information and communication technologies (COMMUNICATION AND INFORMATION TECHNOLOGY) in rural development. *Life Science Journal* 8 (2), 75-80.
- 20) Opata, P., Nweze, J., & Rahman, M. (2011). The place of information and communication technology in promoting agro-based enterprises in third world countries. *Journal of Agricultural Technology*, 7 (2), 207-214.
- 21) Sachs, J. (2005). *The end of poverty: Economic possibilities of our time*.
- 22) Stiglitz, J. (2002). *Globalization and its discontents*.
- 23) World Bank. (2002). *Globalization, growth, and poverty* Washington, DC: World Bank