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A STUDY ON THE IMPACT OF ICT FOR SUSTAINABLE RURAL DEVELOPMENT IN INDIA

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Abstract:-This paper tried to explain the importance of ICT for the Rural Development in the Indian context through secondary and primary evidence. The paper mainly interpreted the secondary evidence to point out the role and the meaning of ICT in the rural environment as a vehicle of equality and growth. With this background, the paper attempts to analyze the interest of the rural users of ICT and the problems they face in using ICT for their livelihood and what could be their alternative approach for effective use of ICT. To find answer to this questions the researcher selected three villages in Thiruvallur District which is closer to Chennai city for his study. Based on the primary data it is identified that online and offline opportunity should be encourage according to the interest of the local communities and given practice to exchange knowledge on control and creating ICTs in the rural context.

Keywords:ICT, Rural Development, Sustainable Development.

INTRODUCTION

More than 70 per cent of India's population lives in rural areas, and some 20 million rural households are reported to be landless, while millions more have insecure rights to their land. Agricultural wage earners, smallholder farmers and casual workers in the non-farm sector constitute the bulk of poor rural people. Within these categories, women and tribal communities are the most deprived. Young people in rural areas are forced to migrate seasonally or permanently, without the skills and competencies required by India's rapidly modernizing economy, this trend is not going to change in the near future. Agriculture will continue to be the primary source of livelihood for the rural masses.

STATEMENT OF THE PROBLEM

One-third of the population in the country is continue to be unskilled workers and the majorities are the rural teenagers up to the age of 17 years. Even modern economy system for the educated rural youth, produces unskilled workers. The present economic system in the rural area is not altered according to the changing economic scenario. On the other hand the huge agriculture workers become jobless with decreasing in cultivation land and use of modern methods of cultivation. As a result, hunger, greed and poverty become the major evils confronting the rural population, in some places migration takes place from rural to urban areas without any employable skills. The only universal remedy to cure these evils is to ensure that the developmental efforts of the government reach the intended beneficiaries. By pointing out the problems at the rural areas what we can improve is that to achieve our developmental goals. It is here that the information and communication technologies will play a pivotal role in providing better information and communication facilities to the villages.

METHODOLOGY

This paper is to focus on analyzing and interpreting the secondary data to explain the role of information communication technology in the rural environment in India for sustainable development and to point out with

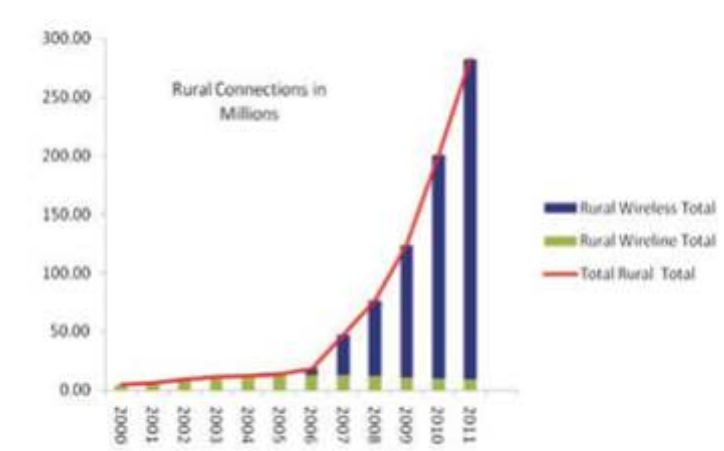
empirical evidence that how far could be the present ICT approaches will be effective in helping the rural people for their sustainable development. The analysis covers only the Ambatur Taluk in Thiruvallur District of Tamilnadu State which is a suburban to Chennai city. The main objectives are (a) how far the rural users are interested in using the ICT for their sustainable livelihood (b) the problems they face in using ICT for their livelihood (c)what could be the alternative approach in using ICT for sustainable development.

SUSTAINABLE RURAL DEVELOPMENT

The term sustainable development was coined under the head of Gro Harlem Brundtland in the World Commission on Environment report under the title "Our Common future", London 1984 and defined that sustainable development as "development that meets the needs of the present without compromising the ability of the future generation to meet their own needs". So it protect the environmental wealth, human capital stock, land, water and air, socio-economic, ecological living and non-living resource base, choice between alternative decision, short term and long term advantages or disadvantages and above all the crucial factor in the process of sustainable development is sustainable agricultural development. Agricultural sustainability and ecosystem protection have recently taken centre stage in international aid and development programmes. Sustainable rural development means a process which enhances the capacity of rural people to produce more goods and services and thereby to improve their level of living and general well being. In such an rural environment where information and knowledge are crucial for economic and social development and communication technologies are the engines of growth and become vehicles of equality and wealth.

INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS)

ICTs as a whole refers to an expanding electronic technologies that are use to handle information to communicate with the help of communication-aid such as hardware, software, media for collection, storage, processing, transmission and presentation of information in any format like voice, data, text and image through computer, internet, CD-Rom, email, telephone, radio, Television, video and digital cameras etc. but Communication and Information differ in nature, Communication is a two-way process in which data and



information are sent and received between two or more parties, each with a similar knowledge and understanding about how the data and information is to be used between sender and receiver. Information is basically data which is more or less a passive commodity with little similar value unless it enriches one or more of its recipients, either in terms of knowledge or in some other, material way. Hence, it is clear that ICT's are the only information devices in

Growth of Rural Connections: Source from Kurukshetra

India that enriches one or more of its recipients for their sustainable livelihood. There is no doubt, today whole nation from urban to rural are well connected with cell-phone coverage and with some extent by the internet. Majority of the population in cities, towns and villages are using the internet in the mode of smart phone.

INDIA'S RURAL ICTs GROWTH

In technological development India gives freedom to the communications technologies for policies, infrastructure development and services for both international and private sectors to take a dominant role in redefining, reshaping and to provide information and communication for national development. So far ICT plays a

pivotal role in shaping the economic life of the above average or elite community people in the nation. Still people who lives in average and below average communities are struggling to participate in information sharing and little is known in many rural areas. India as one of the developing country in the world still hundreds and millions of citizens lack basic needs, so a question to be asked that any relevance to use modern information and communication technology (ICT) for sustainable development in rural areas. In India, political leaders and scientist believed that there is a possibility for the ICTs to emerge as an effective tool for the sustainable development in rural areas. As a result, in 1990's several rural ICT based projects are implemented for the empowerment of rural sector especially in the area of agriculture, health, co-operative, and panchayatraj in India. The major rural ICT services avaiblae in India for sustainable rural development are 1) Bellandur Gram Panchayat, Karnataka 2) Boodikote Jagruthi Resource Centre, Karnataka 3) eSeva APOnline Centre, Andra Pradesh 4) Gyandoot Government-to-Citizen Network, Madhya Pradesh 5) HP iCommunity in Kuppam, Andra Pradesh 6) ITC e-choupals, Madhya Pradesh 7) M.S. Swaminathan Research Foundation Info Village Knowledge Centre, Pondicherry 8) n-Logue Chiraag Kiosks, Tamilnadu and 9) Warana Wired Village Project, Maharastra. Government policies supports the rural ICT project from both public sectors and private firms to disseminate information in the areas of agriculture, health, education, women empowerment and in marketing. Even ICT services are being used by the district administration, cooperative union, state and central government departments to inform about the rural development programmes to the citizens at their villages. This helps to reach the un-reach, to reduce the time and cost and transparency in service.

ICT FOR SUSTAINABLE RURAL DEVELOPMENT

Information and Communication Technology for rural development will able to give timely instruction and information to the needy citizens in rural areas to generate possible innovative means of wealth in rural environment. ICT able to play a pivotal role in providing information related to commercial, social and educational assistance to the unreached rural areas for the better living condition. Many Indian researchers has concluded that the use of ICT for the nation in the field of education, governance, environmental monitoring, health, human rights promotion and for economic growth will develop the Indian economy, even e-government projects are successful in rural areas where ICT acts as an intermediary between government and recipients. Though there are high rate of poverty in rural India with difficult to cover more than 130 million rural poor through e-Governance and few success of e-Governance in rural India are inaccessible for the rural people but still there are more than forty grassroots' projects currently using modern ICT for development in India. Various studies in the field of ICT for Development stated that ICT in rural areas are still low and is not effective for the downtrodden in the rural areas because most of the ICT methods and approach to the poor people are western in nature and thus become unusable and un-supportable for rural development in India. The Westernized methods and approaches of ICT for development widens the gap between rural and the urban for the countries development.

STUDY AREA

The study area is nearer to the Chennai city which is located in northern part of Thiruvallur District, Tamilnadu state, India. The research study was conducted in the three villages namely Arakambakam, Veerapuram and Kolumedu of Thiruvallur District and the sixty percentage of the main activities of the people in these villages are still involved in agriculture and cottage works. Since these villages are closer to Chennai city there is huge possibility to create a good market potential for the agricultural products. The major crops grown in these villages are rice, cumbu-ragi, green gram, and groundnut. Apart from this, certain horticultural crops like mango, guava and vegetables have also been cultivated successfully. At the same time the major threat and weakness for the sustainable livelihood in these rural areas are due to rapid growth of industrialization, construction of colleges & universities and residential buildings because these villages are closer to Chennai city. Moreover in these villages people find it more remunerative to work in low salaries in industries, in educational institutions and as construction labourers than to work in agricultural field and related works.

SURVEY RESULTS OF Impact of ICT FOR RURAL DEVELOPMENT

The survey was conducted in all the three villages and from each village 50 ICT rural users were interviewed to know the main objectives of the research. Data was collected only from those who have internet connection in various electronic devices. The detail related with respondent is given in table 0.1.

Table 0.1 Summary of the selected villages

S.No	Name of the Village	No. of Respondent
1	Arakambakam	50
2	Veerapuram	50
3	Kolumedu	50

a) Rural Users interest in Using ICT for Sustainable Development

The entire respondent in the three villages have internet connection and access either through computer or through smart phones from various providers. The respondents are from the age between 28 to 55 years and know to read and write in their language and educated from SSLC to Degree holders. Majority of the respondents depend on agricultural activities and some in Horticulture and allied activities.

Table-1 Rural users interest in using ICT

S.No	Interested in using web site	Arakambakam	Veerapuram	Kolumedu	**Total**	Percentage
1	Agricultural information	10	9	12	**31**	21%
2	News, marketing	-	-	-	**-**	00
3	Government project/scheme	18	20	22	**60**	40%
4	Health	-8-	-6-	-6-	**20**	13%
5	Other: e-mail,entertainment.	14	15	10	**39**	26%
	TOTAL	**50**	**50**	**50**	**150**	100

In Table-1 the rural users in all the three villages shows interest in accessing the communication technologies for their sustainable livelihood. The closed ended interview reveals that in all the three villages rural users are very particular in visiting agricultural information, government schemes and health related information for their livelihood. Among the total respondent, the majority 40% of them access to government projects and schemes followed by the 26% access ICT for chatting and browse for fun which not related to their sustainable livelihood. In Agricultural related information which is most important for the sustainable rural development stands only 21% of the total respondents followed by Health related information 13%. Respondents in all the three villages find other medium like newspaper, television for news and marketing because in this medium they get up-to-date information in their own languages.

b) Problems people face in using ICT in rural areas

Table-2 Problem in using ICT in Rural Areas

S.No	Problems	Arakambakam	Veerapuram	Kolumedu	**Total**	Percentage
1	cost, connectivity & maintenance	7	6	6	**19**	13%
2	No Feedback	8	8	7	**23**	15%
3	Time Consuming	5	7	5	**17**	11%
4	Irrelevant information	12	9	10	**31**	21%
5	Out dated content	18	20	22	**60**	40%
	TOTAL	**05**	**50**	**50**	**150**	100

Table-2 shows around 40% of the respondents in the three villages stated that the information related to the rural development are out dated and not been updated periodically in the ICT. 21% of the respondents reported that information related to our context, location is lacking, information like climate, fertilizers, seeds related to our soil and financial assistance are not mentioned for the farmers. 15% of the respondents feel that ICT's fail to clear our doubts when we need for help. 13% of the rural users in this villages believe the use of ICT for their livelihood is very expensive when compare with other medium such as radio, TV and newspaper. 11% of the respondents stated that use of ICT is a waste of time where we get majority of the information in English not in local languages.

DISCUSSION ON THE FINDINGS

All developmental activities in the rural areas must be considered as important to ensure development. ICT need to set a strong and positive contribution towards achievement of development with relationship to powerful local people and to support their indigenous growth towards the objectives of the nation. Simply copying and using the existing western models in ICT for rural development in India should be modified and to be dully indigenous

content should be transmitted to the intended rural receivers. For economic development in rural areas ICT should be collective with the existing models and with the traditional knowledge systems to make sure of the local people involvement and ownership of the rural receivers. Because using of indigenous systems are important not for its richness but for these systems had good progress over generation after generation in preserving the social balance in the rural areas few examples such as "Honey Bee Network" which served as an effective problem solving solution in rural development in India. Such traditional knowledge systems should be identified and to be disseminated to the rural people for sustainable rural development. Even exchange of ideas, thoughts and attitudes between local communities and development agencies need to be improved to ensure success of the development process because local communities are the nearest to the basic problems as well as best judge to assess alternative use of technology and provide innovative solutions for the local problems in their rural areas. Such rural participation brings ICT models in use for social and economic development in rural areas.

EVALUATION AND CONCLUSION

Use of ICT's in rural areas should support international content with the locally relevant content in local languages such as local language tools, digital libraries, e-learning, archives of local cultural resources, and needs assessment of rural communities with feedback i.e two-way communication. Online content should have both the State and central Government information such as in publishing citizen information for rural communities on the Web and promoting online services for applications like downloading and submitting tax forms, land records, import/export documents and pension claims which creates the interest of the rural users to access the ICT for sustainable development. ICT for rural development should have a strong grassroots support with local communities in the villages. Online and offline opportunity should be encourage according to the interest of the local communities and given practice to exchange knowledge on control and creating ICTs in the rural context. Showing similar ICT's for development in other rural communities of the world could enable rural India to improve and create interest level and to share knowledge, ideas and attitude meaningfully.

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