

ROLE OF ICT IN DEVELOPMENT: A STUDY OF TEA GARDEN COMMUNITIES OF SOUTHERN ASSAM IN INDIA

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ABSTRACT

The paper entitled "Role of ICT in Development: A study of Tea Garden Communities of Southern Assam in India" is a part of research outcome of an IMPRESS project sponsored by ICSSR and ministry of Education, New Delhi. Since ICTs are playing a very important role, now-a-days, in development of rural areas as well as the application of ICT is also improving the quality of life by building their capacity among of the backward communities in India. As such, the tea industry in Barak Valley in Southern Assam of India provides employment to about 30% of the working population, a study was conducted in the three tea gardens of Barak Valley to identify the needs and role of ICTs in capacity building of the Tea Garden Community. In the study, the data was collected through the participants' observation as well as interview schedule. The respondents were union leaders, executives and workers selected purposefully on first-met-first response basis. Further, the paper analyses the relationship between ICT and development in the tea garden community. ICT offers communication facilities that support various activities in their livelihood. The main discussion of this paper is primarily to assist the tea garden community of the Barak Valley of Assam as well as to improve their productivity and the standard of living through the implementation of ICT.

Keywords: *ICT, Community, Development, Tea Garden, Barak Valley.*

Introduction

Information and communications technology (ICT) refers to all the technology used to handle telecommunications, broadcast media, intelligent building management systems, audiovisual processing and transmission systems, and network-based control and monitoring functions. Although ICT is often considered an extended synonym for information technology (IT), its scope is broader. ICT has more recently been used to describe the convergence of several technologies and the use of common transmission lines carrying very diverse data and communication types and formats.

Information and Communication Technology

The term Information and Communication Technology (ICT) is also used to refer to the convergence of audiovisual and telephone networks with computer networks through a single cabling or link system. There are large economic incentives (huge cost savings due to the elimination of the telephone network) to merge the telephone network with the computer network system using a single unified system of cabling, signal distribution, and management. ICT is an umbrella term that includes any communication device, encompassing radio, television, cell phones, computer and network hardware, satellite systems and so on, as well as the various services and appliance with them such as video conferencing and distance learning.

Capacity Development

Capacity Development is the process by which individuals and organizations obtain, improve, and retain the skills, knowledge, tools, equipment and other resources needed to do their jobs competently or to a greater capacity (larger scale, larger audience, larger impact, etc.). Capacity Development are often used interchangeably. It often refers to strengthening the skills and competencies of people and communities in small businesses and local grassroots movements in order to achieve their goals.

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Importance of ICT in Development

ICT plays a very important role in capacity building. However, the tea gardens are not able to avail the maximum benefits from the domain of development of ICTs. The main reasons for this are poor ICT infrastructure in rural areas, poor ICT awareness among agency officials working in rural areas and local language issues. Agriculture is an important sector with more than 70% of the Indian population living in rural areas and earns its live hood by agriculture and allied means of income. In rural communities of developing countries, with limited capacities and resources to respond to the effects of extreme natural hazards, drought, landslides, floods, and to the impacts of these events on local social systems (e.g. health, infrastructure, transportation, migration), ICT tools (the potential of tele-centres for disaster preparedness and response) are emerging as an area of increasing interest. Communities and farmers' organizations can be helped through the use of ICTs to strengthen their own capacities and better represent their constituencies when negotiating input and output prices, land claims, resource rights and infrastructure projects. ICT enables rural communities to interact with other stakeholders, thus reducing social isolation.

Tea Garden Community in Southern Assam

Chinese Emperor, Chen Nungmore, declared tea, the miracle drink originated in China, a health drink 5000 years ago. While boiling water below a tea tree, a leaf fell into his pot and the king found the drink refreshing. Chinese believe it to be the Divine Healer. The tribes of Assam for a long time, who are of the oriental stock and took tea as a health drink. Local tribal Singpho chief, Bisa Gaum helped C. A. Bruce in 1823, to discover Assam variety of Tea Plant 'Camelia Sinesis Var Assamica'. The discovery of tea and its commercial production changed Assam's economy. Vast wild forestlands were transformed into beautiful tea gardens, along the Brahmaputra and Barak valley. Today, Assam produces 400 million kg of tea, per year. Tea is an integral part of the hospitable Assamese people. They start their day with a cup of the brew and end it with one in the evening. Guests are welcomed by offering a cup of tea. The traditional way to taste the brew is in Bell Matel Bowl called "Banbati".

The present study area Barak Valley of Southern Assam is a creation of the nineteenth century and is a result of almost accidental involvement of British Indian Government in the affairs of neighboring States. The British were responsible for introducing Tea in Barak Valley between 1840 and 1850 and today Barak Valley is famous for its world famous tea which is called the Champagne of Tea. The tea industry in Barak Valley provides employment to about 30% of the working population directly and indirectly. Along the line, 40% of the directly employed are woman. This is because right from the beginning women were absorbed since all field jobs such as weeding, sticking, plucking of tea leaves are well handled by women workers.

But recently the tea industry of Barak valley is in a bad shape, instead of the great demand from the abroad to promote tea as health drink. This is remarkably a dilemma where there is a great demand but the supply is less. This is due to certain problems like the market trends related to tea is changing day by day. The quality of raw material in the valley is also deteriorating day by day. So it can't be possible to maintain the consistency in quality of tea. Thus the gardens have to face the stress.

Since, these are the common problems facing by the tea gardens, it definitely increases high production cost. So they cannot face the market. These also include no trained manpower and no proper interaction with scientist, academicians, marketing manager and union. Peace and prosperity must be a part of it. Insufficient money flow and poor access to other resources are some other important problems faced by the tea gardens in Barak Valley. There is an urgent need to understand these confounding problems plagued the tea gardens of Barak Valley. There is dearth of studies on this subject those, which pertain to Barak Valley. Considering this gap in the body of knowledge this study is undertaken by the present researchers.

Statement of Problem

The family, the kin group and the society as a whole provide knowledge to their members through the way of participation in their everyday lives. Basic literacy and Information and Communication Technology (ICT) and knowledge are the significant ways of increasing human capacity in a society. Without the knowledge and skills required to increase human capacity, the use of the new communication technologies, will be impossible. Therefore, information literacy, that is, basic skills in acquiring, managing and communicating information is essential to familiarize with new technologies and their use.

ICTs are playing a very important role in transforming the mode of imparting knowledge now-a-days. While the interactive videos sessions are increasingly becoming common in the social platforms, popularity of online training are helping in improving access and quality of skill based knowledge. The application of ICTs in the mode of imparting knowledge is thus improving the quality of life of the minorities in India. Minority can be defined on the basis of language, gender, ethnicity and religion. In terms of religion, Muslims, Sikhs, Buddhists, Christians and Jains are the minority in India. But if we considered Hindu as majorities in India, these tea garden communities come under the minority under Hindu religion. All people belonging to this community are Hindu. Till now a very few person has convergent to any other religion so far. From the point of view of the present research work, there is a need to understand the role of ICTs in capacity building among the Tea Garden Community who constitute an important minority group among Hindus not only in Barak Valley of Assam but also in India at large

In keeping with their complex nature and multiple applications, ICTs may be viewed in different ways. ICTs "refer to technologies people use to share, distribute, gather information and to communicate through computers and computer networks". (ESCAP 2000). In other words, ICTs represent a cluster of associated technologies defined by their functional usage in information access and communication, of which one embodiment is the Internet. The Internet is considered an effective tool that can reach the remotest and most excluded rural poor provided there is connectivity. Hargittai(1999 : 701-718) defines the Internet technically and functionally as " a worldwide network of computers, but sociologically it is also important to consider it as a network of people using computers that make vast amounts of information available. Given the two basic services of the system communication and information retrieval, the multitude of services allowed is unprecedented." Thus, ICTs can be described as all kinds of electronic systems used for broadcasting, telecommunications and computer mediated communications. The techno-centric perspective emphasizes the historical discontinuity of ICTs in which the imperative of technological development determines social development (Zuboff 1988). Castells (1989), Bell (1973) and Schiller (1984) conceptualize the present society as 'information society' in Webster's (1996) work. Castells analyzes the information society as a combination of capitalist restructuring and technological innovation which transform the society. Bell defines it as 'post industrial society' which emerges from changes in social structures only. His perception of the 'information age' is characterized by the current epoch of capitalism in which information and communications have a pronounced significance in the economic stability. The access to ICTs in among the Bishnupriya Manipuris is variable in the context of place, culture and economy. At the same time, it is different in a backward region like North East India. Therefore, a question is raised here: **What is the pattern of access to ICTs for capacity building among the tea garden communities in North East India, especially in Barak Valley of Assam.**

Research Questions

- Does ICT access make the learning process more effective among the Tea Garden Communities of Barak Valley?
- Does ICT access enhance the skills among the Tea Garden laborers of Barak Valley?
- Does ICT access lead to the community development among the Tea Garden Community of Barak Valley?

Purpose of the Study

The specific purpose of the present study was:

- To examine the extent of usage of ICTs among the tea garden community of Assam.
- To assess the role of ICTs in capacity building particularly in terms of education, skill and knowledge of tea garden community of Assam in India.

Research Methodology

The study will use descriptive research design to analyze the role of ICTs in capacity building among the tea garden communities of Barak Valley. It will mainly focus on the new communication technologies, namely, digital TV, satellite communication, computer, and Internet for empirical understanding.

The study was conducted in Dewan Tea garden and Aainakhal Tea Garden in Barak valley of southern Assam where 95 tea garden laborers from each garden were randomly selected. The primary data was collected through the participant observation as well as interview schedule where the union leaders, executives and workers, selected randomly and personally met on first-met-first response basis.

Findings

• Access of ICT

This section deals with the analysis of media used among the selected tea gardens in Barak valley region in Assam. The items included in the schedule were different print and visual media like newspapers, television, radio, Internet etc. The frequency and percentage analysis with respect to the selected three tea gardens were done to know the level of media usage among the sample respondents. They are as follows:

▪ Education of the Respondents

This category deals with the education of the respondents from the selected tea gardens Barak valley region in Assam. The frequency and percentage analysis of the whole sample were carried out. They are as follows

Table 1.1: Education Levels of the Respondents

Sl. No.	Level of education	Frequency	Percentage
1	Illiterate	66	34.73
2	Primary	62	32.63
3	Middle School	40	21.02
4	High school	22	11.62

The above table shows the education level of the respondents of the selected tea gardens of Barak Valley Region in Assam. 34.73% of the respondents are illiterate, 32.63% of the respondents had primary level education, 21.02% of the selected respondents have middle school level of education. Whereas only 11.62% of the respondents are only high school passed out. So it is clear from the analysis that a very minimal percentage of respondents have higher level of education.

• Family Income

This category deals with the family income of the respondents from the selected tea gardens Barak valley region in Assam. The frequency and percentage analysis of the whole sample were carried out. They are as follows:

Table 1.2: Family Incomes of the Respondents

Sl. No.	Income Group	Frequency	Percentage
1	Below Rs. 1000	20	10.52
2	Rs. 1001-3000	140	73.68
3	Rs. 3001 and above	30	15.80

The above table shows that 10.52% of the selected respondents have a family income that is below Rs. 1000. 73.68% of the respondents have an income of Rs. 1001 to Rs. 3000. And 15.80% of the respondents have a family income of Rs. 3001 and above. On the whole it can be inferred that maximum of the respondents have family income of Rs. 1001- Rs. 3000.

• Newspaper Use among the Respondents of Selected Tea Gardens

This item deals with the newspaper use among the respondents from the selected tea gardens of Barak valley region in Assam. The frequency and percentage analysis of the sample of respective tea gardens were carried out to know the average use of newspaper among the respondents. They are as follows:

Table 1.3: Newspaper Use among the Respondents of Selected Tea Gardens

Name of the Tea Garden	Criterion	Frequency	Percentage
Dewan Tea Garden	Yes	40	42
	No	55	58
Total		95	100

Table 1.3.1: Newspaper Use among the Respondents of Selected Tea Gardens

Name of the Tea Garden	Criterion	Frequency	Percentage
Ainakhal Tea Garden	Yes	38	40
	No	57	60
Total		95	100

The above two tables show that the newspaper use among the respondents of two specific selected tea gardens namely Dewan tea gardens and Aainakhal tea gardens respectively. From Dewan tea garden number of respondents reading newspapers are 42.10% and 57.90% of the respondents do not read newspapers. Again the table 1.3.1 shows the newspaper use among the respondents of Aainakhal Tea estate. 40% of the respondents read newspaper in this estate whereas 60% of the respondents do not read newspapers. On a whole it can be inferred that in both the tea gardens the number of respondents not using newspapers is greater than the respondents using it.

- **Radio Use among the Respondents of Selected Tea Gardens**

This item deals with the radio use among the respondents from the selected tea gardens of Barak Valley region in Assam. The frequency and percentage analysis of the sample of respective tea gardens were carried out to know the average use of radio among the respondents. They are as follows:

Table 1.4: Radio Use among the Respondents of Selected Tea Garden

Name of the Tea Garden	Criterion	Frequency	Percentage
Dewan Tea Estate	Yes	42	44.21
	No	53	55.79
Total		95	100

Table 1.4.1: Radio Use among the Respondents of Selected Tea Garden

Name of the Tea Garden	Criterion	Frequency	Percentage
Aainakhal Tea Garden	Yes	59	62.11
	No	36	37.89
Total		95	100

Table 1.4 and table 1.4.1 show that the radio use among the respondents of Dewan tea garden and Aainakhal tea garden respectively. It is clear from the tables that in case of Dewan tea estate 44.21% of the selected respondents use radio whereas 55.79% of the respondents do not use radio. Again in case of Aainakhal tea garden 62.10% of the respondents use radio and 37.90% of the respondents do not use radio. On a whole it can be inferred that respondents using radio is higher in Aainakhal tea garden is higher in comparison to Dewan tea estate. Moreover, selected respondents not using radio is higher than using radio in Dewan tea estate. Whereas in Aainakhal tea garden the case is not the same. The respondents using radio is higher than the respondents not using it.

- **Television use among the Respondents of Selected Tea Gardens**

This item deals with the television use among the respondents from the selected tea gardens of Barak valley region in Assam. The frequency and percentage analysis of the sample of respective tea gardens were carried out to know the average use of television among the respondents. They are as follows:

Table 1.5: Television Use among the Respondents of Selected Tea Gardens

Name of the Tea Garden	Criterion	Frequency	Percentage
Dewan Tea Garden	Yes	78	82.10
	No	17	17.90
Total		95	100

Table 1.5.1: Television Use among the Respondents of Selected Tea Gardens

Name of the Tea Garden	Criterion	Frequency	Percentage
Aainakhal Tea Garden	Yes	68	71.58
	No	27	28.42
Total		95	100

The above tables show the use of television among the respondents of tea garden in Barak valley region, Assam. It is clear from the tables that in case of Dewan tea estate 82.10% of the selected respondents use television whereas 17.90% of the respondents do not use television. Again in case of Aainakhal tea garden 71.58% of the respondents use television and 28.42% of the respondents do not use television. On a whole it can be inferred that respondents using television is higher in Dewan tea garden is higher in comparison to Aainakhal tea estate. Moreover, selected respondents using television is higher than not using television in Dewan tea estate.

- **Internet use among the Respondents of Selected Tea Gardens**

This item deals with the television use among the respondents from the selected tea gardens of Barak valley region in Assam. The frequency and percentage analysis of the sample of respective tea gardens were carried out to know the average use of television among the respondents. They are as follows:

Table 1.6: Internet Use among the Respondents of Selected Tea Gardens

Name of the Tea Garden	Criterion	Frequency	Percentage
Dewan Tea Garden	Yes	18	18.95
	No	77	81.05
Total		95	100

Table 1.6.1: Internet Use among the Respondents of Selected Tea Gardens

Name of the Tea Garden	Criterion	Frequency	Percentage
Aainakhal Tea Garden	Yes	23	24.21
	No	72	75.79
Total		95	100

The above table shows the use of Internet among the respondents of tea garden in Barak valley region, Assam. It is clear from the tables that in case of Dewan tea estate 18.95% of the selected respondents use Internet whereas 81.05% of the respondents do not use Internet. Again in case of Aainakhal tea garden 24.21% of the respondents use Internet and 75.79% of the respondents do not use Internet. On a whole it can be inferred that respondents of both Dewan tea estate and Aainakhal tea estate are not very keen in using Internet and therefore the percentage of not using Internet is higher in comparison to respondents using it.

The Role of ICTs in Capacity Building

This segment deals with the analysis of ICT access of respondents with respect to the various programs from the selected tea gardens of Barak valley region in Assam. The frequency and percentage analysis with respect to the selected tea gardens were done to know the level of ICT access on various programs among the sample respondents. The same were conducted to know the average level of media exposure among respondents.

- **ICT Access on Listening Agriculture Programs**

This item deals with the media exposure on listening Agriculture programs among the respondents from the selected tea gardens of Barak valley region in Assam. The frequency and percentage analysis of the sample of respective tea gardens were carried out to know the average level of media exposure on listening Agriculture programs among the respondents. They are as follows:

Table 2.1: ICT access on listening Agricultural Programs

Name of the Tea Garden	Criterion	Frequency	Percentage
Dewan Tea Garden	Yes	72	75.78
	No	23	24.22
Total		95	100

Table 2.1.2: ICT Access on Listening Agriculture Programs

Name of the Tea Garden	Criterion	Frequency	Percentage
Aainakhal Tea Garden	Yes	69	72.63
	No	26	27.37
Total		95	100

The above table shows that the ICT access of listening the Agriculture programs among the respondents of tea garden in Barak valley region Assam. From Dewantea estate out of 95 sample respondents, 72 respondents (75.78 percent) and in Aainakhal tea estate out of 95 sample respondents 69 respondents (72.63 percent) werelisting Agriculture programs.

- **Media Exposure on Listening Entertainment Programs**

This item deals with the media exposure on listening Entertainment programs among the respondents from the selected tea gardens of Barak valley region in Assam. The frequency and percentage analysis of the sample of respective tea gardens were carried out to know the average level of media exposure on listening Entertainment program among the respondents. They are as follows:

Table 2.2: ICT Access on Listening Entertainment Programs

Name of the Tea Garden	Criterion	Frequency	Percentage
Dewan Tea Garden	Yes	85	89.48
	No	10	10.52
Total		95	100

Table 2.2.1: ICT Access on Listening Entertainment Programs

Name of the Tea Garden	Criterion	Frequency	Percentage
Ainakhal Tea Garden	Yes	77	81.05
	No	18	18.95
Total		95	100.0

The above table shows the ICT access of listening Entertainment programs among the respondents of tea garden in Barak valley region Assam. From Dewan tea estate out of 95 sample respondents 85 respondents (89.48 percent) and Ainakhal tea estate out of 95 sample respondents 77 respondents (81.05 percent) are listening to Entertainment programs. While comparing the status of two tea gardens shows that there are more than 80% of the respondents were listening Entertainment programs and the remaining were not listening to Entertainment programs for enhancing their media exposure.

- **Media Exposure on Listening Women's Programs**

This item deals with the media exposure on listening Women's Programs among the respondents from the selected tea gardens of Barak valley region in Assam. The frequency and percentage analysis of the sample of respective tea gardens were carried out to know the average level of media exposure on listening Women's Programs among the respondents. They are as follows:

Table 2.3: Media Exposure on Listening Women's Programs

Name of the Tea Garden	Criterion	Frequency	Percentage
Dewan Tea Garden	Yes	45	47.36
	No	50	52.64
Total		95	100.0

Table 2.3.1: Media Exposure on Listening Women's Programs

Name of the Tea Garden	Criterion	Frequency	Percentage
Ainakhal Tea Garden	Yes	41	43.15
	No	54	56.84
Total		95	100.0

The above **Table 2.3** and **Table 2.3.1** shows the ICT access on listening Women's programs among the respondents of tea garden in Barak valley region Assam. From Dewan tea estate out of 95 sample respondents, 45 respondents (47.36 percent) and Ainakhal tea estate out of 95 sample respondents, 41 respondents (43.15 percent) are listening to women's programs

- **ICT Access on Listening Educational Programs**

This item deals with the media exposure on listening Educational programs among the respondents from the selected tea gardens of Barak valley region in Assam. The frequency and percentage analysis of the sample of respective tea gardens were carried out to know the average level of media exposure on listening Educational programs among the respondents. They are as follows:

Table 2.4: ICT Access on Listening Educational Programs

Name of the Tea Garden	Criterion	Frequency	Percentage
Dewan Tea Garden	Yes	38	40
	No	57	60
Total		95	100.0

Table 2.4.1: ICT Access on Listening Educational Programs

Name of the Tea Garden	Criterion	Frequency	Percentage
Ainakhal Tea Garden	Yes	42	44.21
	No	53	55.79
Total		95	100.0

The above tables show that the ICT access on listening educational programs among the respondents of tea garden in Barak valley region Assam. From Dewan tea estate out of 95 sample respondents, 38 respondents (40 percent) and Aainakhaltea estate out of 95 sample respondents, 42 respondents (44.21 percent) are listening to educational programs.

Conclusion

It has been observed during the study that this tea garden community is practically kept under iron curtain. They have not been allowed to interact with people outside the garden. Thus, they are deprived of opportunities to exchange their views on socio-economic and political issues confronting the region and the country as a whole. The exchange of views would surely widen their mental horizon. The habit of reading newspapers listening to radio and watching TV should be promoted among the labourers through the fruitful implementation of ICT.

There is no doubt that the tea garden people are one of the most backward and socially neglected communities of Assam in India. To be precise they are poor, ignorant, uncared, unclad, exploited, unhealthy, and the majority of them are therefore still living below poverty line even after more than seventy years of our independence with all immortalized and glorified slogans like *GaribiHatao Jai (Remove Poverty)*, and *Health For All* etc. It is needless to say that until and unless the Centre and the State Governments are serious about upliftment of this community we really cannot expect anything worthwhile to come to their rescue because they are trapped in the vicious cycle of poverty and poverty is the source of all evil.

So with the help of modern technology the government should come forward without any further delay to carry out education, skill base training and can generate new employment scheme to do justice to these backward community. In fact, real development of Assam is never possible if large sections of the people are languishing. However, this tea garden community must also know that if they are serious about solving their perennial problem permanently, they must come forward joining hands together to fight for their own cause without pinning hope on the Government to do something miracle to solve their problems

Community participation is very crucial to the success of any capacity building of a community. Therefore effort should be made by educated section and social worker from the tea laborer for proper sanitation, personal hygiene, safe drinking water and dispelling the misbelieve, taboos and major religious practices which are posing impediment in achieving good health and stressed the need of creating awareness regarding the disease and chalk out some programme for eradication.

The good health of the tea laborer is very important for running the garden. Therefore, more emphasis should be given by the management to medical facilities, especially on increasing the availability of medicine, instrument, equipment and good number of medical staff (trained personnel). Vigorous campaign should be carried out to immunize the expectant mother and the children as well for availing of effective family planning measures. Here the ICT facility can be fruitfully utilized from promoting to record keeping to monitoring implementation; deliverance of medical facilities and online health advisory can do a miracle in this regard.

Education is the door through which the people can enlighten themselves in every sphere of life. Most of them are not interested in formal education even in case of their children also. Education of children and adult workers should be made compulsory in the garden so that they can develop their personality and realized their needs. Government is now trying to extend "Total Literacy Campaign" (TLC.) among the workers of the garden through the implementation of ICT.

The meager income of the community from the garden is not sufficient to provide basic requirements for the large sized family in which the number of dependents is increasing day by day. The management is finding difficulty in providing job to the whole lot. The unemployed member of the family remained starved. For them, technical training or promotion of a small-scale cottage industry in the garden is indispensable necessary to cope up with large-scale unemployment. The use of ICT can be more effective to provide the technical training in a cost effective way

Tea garden workers are addicted to alcohol, which is viewed in every garden as social evil. The British planters are partly responsible for making them alcoholic. This bad habit, which is like a cancer in the happy life of a worker, has to be stopped with a strong hand. Drinking should be made punishable in the garden, not only on paper, but in actual practice. Through the use of ICT, awareness can be made to convey the message about the ill effects of alcohol.

Practically garden labour is politically dwarfed. Even the Cachar Cha Sramik Union — a trade union organization, has not inculcated the political awareness in their minds, during election there is high percentage of voting in each garden. This is not due to political awareness in them rather political maneuvering by the leaders. In this regards the implementation of ICT will also be helpful.

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