ICT &E-GOVERNANCE TO REMOVE INFORMATION POVERTY IN RURAL INDIA

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"Poverty is the worst form of violence"

M.K.Gandhi

INTRODUCTION

Poverty is a multidimensional phenomenon in which a section of society is unable to fulfil even the necessities of life, World Development Report (WDR 2000-01). Hunger, undernutrition, illiteracy, lack of access to potable water, basic health care, inaccessibility to data, transportation, communication, and credit, as well as social discrimination, physical insecurity, and political marginalisation, are all examples of poverty (Chronic Poverty Report CPR 2008-09). Poverty, in a larger sense, is defined as a lack of access to the knowledge needed to engage in society on a local, national, or global level (ZEF, 2002)

Poverty was formerly defined only in terms of income, but in recent years, development organizations have begun to associate it with "Information Poverty," and the knowledge gap is increasingly seen as a key factor of poverty persistence. Citizens who are more informed are better equipped to exercise their rights, fulfil their obligations, and enhance their income within their community and area. Access to relevant, timely information and expertise may make a huge difference in the lives of those who are less fortunate. Poor people have access to information and knowledge resources that allow them to examine their position, gain essential skills, seek social justice, and not only participate in but also benefit from progress. Exposure to public and private information can help to eliminate corruption, embarrassment, save time and money, and empower the underprivileged.

The Magnitude of Poverty

2.8 billion people, or over half of the world's population, live on less than $2 a day, while L.4 billion, or a fifth, live on less than $1 a day, with 44 percent of them residing in South Asia (World Dank 2004). Rural poverty is more prevalent than urban poverty all across the world. Rural locations have far less access to communication networks than metropolitan areas. In the majority of nations, 80-90 percent of the poor reside in rural regions (IFAD 2010) s D 2010. "Even with rising urbanization, the developing world is likely to remain overwhelmingly rural in most regions by 2020, with the bulk of the poor expected to stay in rural areas until 2040." (World Development Report 2008). The landless marginal farmers and renters, SCs, STs, indigenous peoples, and scheduled cash-n-headed families are the key groupings of the rural poor. Pastoralists, coastal fishermen, and woman-headed households of distribution (either based on level of per capita consumer expenditure or level of per capita income) might be classed as poor or non-poor on this basis.

Even after 63 years of independence, India's most serious issue is how to cope with the country's rural poor and raise their income levels. According to NSSO its recent 61st round estimates in 2004-05, (1aDie no 1) about 28.3%0 of rural people, 25.7% of f the urban population and 27.5% of the total population was living below poverty line, (Planning commission govt. of India).

Table No, 1. People below Poverty Line in India (1973-2004)

Years	Rural		Urban		Combined	
	Number of Poor (in lakhs)	Percentage of Rural population	Number of Poor (in lakhs)	Percentage of Urban Population	Number of poor (in lakhs)	Percentage of total population
1973	2612.90	56.4	600.46	49.0	3213.36	54.9
1983	2519.57	45.7	709.40	40.8	3228.97	44.5

1993	2440.31	37.3	763.37	32.3	3203.68	36.0
2004	2209.24	28.3	807.96	25.7	3017.20	27.5

Source: Planning Commission govt of India.

Poverty effects can be seen in the form of malnutrition, squalor or diseases, slum dwelling poor housing and insanitary environment, overcrowding, illiteracy, indebtedness, indecent living, deviant behaviour, domestic violence, premature death, vicious circle of poverty, incapacity to acquire skill, infant mortality, distress migration, anemia, underweight, and are frequently subjected to natural disasters like as cyclones, floods, and droughts. Being impoverished and being a woman is a double whammy for women. Haves (rich) consider poor people are burden on the society. They are harassed, exploited, humiliated and discriminated against at every level.Rampant poverty may breeds crime and political instability which effects socio economic environment of business.

Information Poverty and Digital Divide

Poverty is wreaking havoc on India's environment and economic progress, as well as the country's capacity to compete with countries that have superior physical infrastructure, informed citizens, and a more educated populace. About 2/3 of our people lives in villages, where infrastructure like as communication networks, roads, transportation, health care, and education is inadequate, causing our rural community to become even more backward.

One of the reasons of income poverty is a lack of information. There is a lack of relevant information that people desire to know. As a result, the divide between "information wealthy" and "information poor" is widening, and the poor lack the financial means to access the knowledge that has given rise to the Information Superhighway. Because knowledge is a wonderful source of riches, health, power, and dominance, they may use it to become affluent, healthy, powerful, and dominating. The potential of information networking may revolutionize the current ill system, empowering rural and urban poor, and converting information into knowledge for wealth development. We must develop information

technology in such a manner that a completely untrained impoverished individual may quickly grasp it and transform gained knowledge into wealth generation. The following sections make up this document. Section II dealt with a review of the literature, Section II dealt with ICT for rural transformation, caption IV highlighted obstacles to overcoming poverty through ICT, section V explored E-Government, and section VI finished with policy implications.

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Section II

Review of Literature

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Having briefly introduced the topic, objectives and research design it would be fruitful to acquaint ourselves of the findings of the existing studies undertaken by the researchers on the theme of our discussion. These studies are likely to through useful light on ICT and E governance to eradicate rural poverty in India.

Martin and McKeown (1993) believed that without sufficient infrastructure development in transportation, education, health, and social and cultural institutions, rural growth would be unlikely. ICT can help isolated and rural communities improve their living conditions by delivering substantial commercial, social, and educational benefits (Share, 1993; Madden et al., 1997). Electronic service centres have a critical role, particularly in reaching out to underprivileged groups living in rural regions (Singh, 2000). Wilson (2000) finds that ICT has development applications in education, governance, environmental monitoring, health, human rights promotion, economic growth, and other sectors in a developing economy like India.

Rural economies, according to Malhotra (2001), may benefit from ICT by focusing on social production, social consumption, and social services in rural regions. Agriculture (genetic modification), medicine (genome research and bioinformatics), and information and communication technologies (ICTs) are three domains in which technological diversity offers great promise for the impoverished (The Economist, November 2001). Information and communication technology (ICT) have the ability to boost economic growth while also empowering people (Nandi, 2002). E-governance is a fast growing field of ICT use that has the potential to alleviate poverty's helplessness, noiselessness, vulnerability, and other

characteristics. It will break down conventional patterns of on, opaqueness, inefficiency, and neglect in public encounters with government officials if national or local governments have taken significant initiatives to expand democracy and inclusion to the poor (Bhatnagar, 2002).

ICT applications, according to Cecchini and Scott (2003), can improve impoverished people's eyesight by enhancing their access to markets, health, and education. Furthermore, ICT can empower the poor by increasing access to government services and lowering risks by expanding access to micro credit. It has a lot of potential to bring about desired societal changes through improving people's access to services, information, and other technology (Dutton et al, 2004). E-government allows people and communities to participate in innovative ways in discussing (Gupta et al., 2004; Heeks, 2004; Taylor and Williams, 1994; Rogers and Shukla 2001; Gupta et al., 2004; Heeks, 2004) E-government can deliver timely information to residents and has the ability to generate new sources of income in rural areas (Singh, 2004, Malhotra et al, 2006).

The new information and communications activities technologies are powerful, according to Kofi Annan (2002). They are bringing people together, and they are one of globalization's driving factors. They provide decision-makers with never-before-seen development tools. The gap between the "haves" and "have-nots" in terms of information is expanding, and there is a serious danger that the world's poor may be left out of the new knowledge-based economy. A country's weak governance structure obstructs poverty reduction efforts and makes it difficult to reach in-dent goals (Country governance evaluation for the Asian Development Bank, Asia Foundation). E-government might assist countries like India if literacy and fundamental skills are increased (UN Study, 2003).

Section, III

ICT For Rural Transformation

Radio, television, telephones, public speech systems, computers, and the Internet are all examples of ICTS. Almost every country is attempting to improve information flows and communication services in order to eradicate poverty (ICT for Poverty Reduction), which is a

required but insufficient requirement. Agriculture extension services are critical for bringing new technology to farmers, and they may also help with rural development, business growth, and marketing information. Agriculture's growth is increasingly driven by markets. Today's marketing relies on an information system, which includes having enough knowledge about what customers want, at what price, and who can provide it (http://www. Agmarknet.nic.in). In the agricultural sector, ICT diffusion and infusion give the required chances for productivity growth, revenue production, and the reduction of regional disparities.

The use of ICT-based solutions to enable improved governance and rural development has gained traction among various levels of government in practically every country on the planet. There are 700 million people living in 600,000 villages in rural India. The government's main priorities have been to provide basic services and opportunities for economic and social development for the rural people. However, the ICT (Information and Communication Technology) revolution has paved the door for a new approach to growth. In its most convergent form, information technology is acknowledged as a vehicle for a society's social, economic, and cultural transit. It may be used for Community Development (Human Resource Development), Soil and Land Management, Water Management, A Forestation, Pasture/Fodder Development, Live Management, Rural Energy Management, and Farm and Non-Farm Value Addition activities at pricing.

For the lives and livelihoods of the rural poor, access to information is critical: about the lovely things they create, about health, about the structure and services of public utilities, and about their rights. Knowledge, education, and skill development are all within reach. Access to markets and institutions, as well as information about income-generating options that might help them better their lives. Institutions of information, both governmental and societal, that may give people with kets and help them better their lives. Services can be accessed. Distributing locally relevant information, Promoting local entrepreneurship, Improving poor people's health, Strengthening education, Promoting trade and e-commerce, Supporting good governance, Building capacity and capability, Enriching culture, Supporting agriculture, Creating employment opportunities, Reinforcing social mobilisation are all ways that ICT can help to combat poverty.

Information and knowledge are key components of poverty alleviation initiatives, and information and communication technologies (ICTs) promise simple access to vast volumes of data that will benefit the poor. It tackles the so-called digital divide, which outlines the dramatic discrepancies between those who have plentiful access to ICTs and those who don't have any at all. ICTs have been found to promote social and economic growth in areas such as health care, education, employment, agriculture, and trade, as well as enhancing local culture. The information revolution is widely seen as a phenomena that impacts everyone, resulting in significant changes in the way we work, enjoy ourselves, and communicate with one another. However, the fact is that such improvements have largely escaped the mass of humanity, namely the billions of poor people.

Computers and the Internet mean nothing

One of the most promising avenues for poverty reduction is health care. ICTs may be used in a variety of ways to accomplish acceptable health results. In underdeveloped nations, ICTs are being utilised to ease remote consultation, diagnosis, and treatment. As a result, physicians working in remote areas can benefit from the expertise and experience of colleagues and partnering institutions (DOI, 2001). When it comes to disease prevention and epidemic response, lCT has a lot of advantages and possibilities. In underdeveloped nations, public broadcast media such as radio and television have a long history of promoting the distribution of public health messaging and disease prevention tactics. By providing more effective monitoring and response systems, the Internet may also be used to improve disease prevention.

Poor individuals in rural areas sometimes lack access to work possibilities because they do not have access to information about them. One use of ICTs is to provide on-line job placement services via electronic labour exchanges in public employment agencies or other placement agencies. Job brokering is often done as a closed system with intermediaries acting on behalf of their customers. Through open job seeker banks, ICT-enabled improved openness gives up opportunities for more precise information searching.

Rural communities may engage with other stakeholders through ICT, which reduces social isolation. It broadens local populations' perspectives in terms of national or worldwide envelopments, creates new commercial prospects, and makes it simpler to communicate with friends and family. The significance of information and communication technology (ICT) in improving food security and supporting rural livelihoods is becoming increasingly recognised, and it was officially acknowledged at the World Summit on the Information Society (WSIS) in 2003-2005. Better access to finance and remote banking services assist rural populations. Recent mobile banking projects provide even more opportunities to cut expenses and boost local commerce.

Section IV
Obstacle to Overcome Poverty through ICT

Disadvantaged and disadvantaged groups in society are frequently confronted with impediments hurdles to our effective use of ICTs, just as they may encounter impediments to their effective use of other resources. The Indian ICT industry is working to achieve the Millennium Development Goals in sectors including literacy, education, gender equity, and employment, which will benefit a bigger portion of the population. However, basic service delivery challenges include limited access to social services, economic opportunities for rural policy of efficient local service delivery; lack of budgets for services in rural and remote areas; lack of information about entitlements and service availability; and a lack of effective communication channels. K Lack of accountability and transparency, lack of awareness about the benefits of new communitized technologies, lack of access facilities such as computers and connectivity in poor communities marginalised areas, language barriers in using the internet, lack of appropriately packaged inform as nation products in local language, and a lack of motivation to use information available on the Internet. Women in underdeveloped nations, in particular, have a harder time adopting ICTs than males because they are poorer, have more societal restraints, and are less likely to be educated or read. Furthermore, they are more likely than males to utilise ICTs in diverse ways and have distinct information needs. Women are also less likely than males to be able to pay for ICT access, either due to a lack of cash or a lack of control over household spending. Constraints on women's time or their

ability to roam outside the home might also limit their access to technology (Marker et al. 2002). In order to benefit from poor-targeted programmes, such populations typically require extra help and attention.

Section V

E-Governance

One of the most important aspects in supporting economic growth, eliminating poverty, and reducing inequities is good governance. For poverty alleviation, the quality of governance is critical. Participatory, pro-poor policies are encouraged by good governance. It assures the transparent and prudent use of public finances, fosters private sector growth, promotes good public service delivery, and aids in the establishment of the rule of law (Asian Development Bank, 2007). Poor governance and institutions result in policies that are poorly developed and implemented. According to the World Bank, "e-government" is defined as "government-owned or managed information and communications technology (ICTs) that alter ties with people, private delivery, and/or other government agencies so as to enhance citizen empowerment." It was originally known as G2C (Government to Citizen), and it departs from the core ideas of ICT in that it aims to promote accountability, transparency, and efficiency (computerization and connectivity). E-governance improves service delitment negation with citizens or the private sector by introducing an element of unaccountable transparency, and offering "voice" is now characterised as G4C. (i.e. Government for Citizen).

E-governance entails more than merely visiting the government's website. E-strategic governance's goal is to assist and simplify governance across all departments. The tsunami of e-governance is sweeping the world's public organisations and government agencies. Governments are increasingly relying on information and communication technology, particularly the internet or web-based network, to deliver services to residents, businesses, employees, and other non-governmental organisations. In the age of LPGM, effective e-government is a must for socioeconomic progress (LiberalisationPrivatisation, Globalisation and Mercerisation). We will not be able to fulfil the 11th five-year plan's planned faster and inclusive growth rate, as well as the Millennium Development Goals (MDGs), which aim to halve poverty by 2015 from 1990 levels.

Phases of E-Governance

There are five phases of e-government

1.   **E-information:-** Providing information on what the government does, what services are available, how to obtain those services, the location and hours of operation of government offices, and downloadable forms through a website.

2.   **E-commerce:-** Supporting citizen and corporate online tax and fee payments, online licence and permit applications with on-line payments, online benefit of enrollment, electronic agency purchasing and sourcing, and electronic service delivery.

3.   **E-Reengineering :-** Improving budget and planning activities, continuing operations, human resources, and administrative tasks through the use of interfaces and electronic data interchange. E-learning is also being used to deliver more convenient and cost-effective training.

4.   **E-CRM:-** Moving toward more personalised electronic service delivery, with integrated multi-channel citizen service (online, phone, office) and a single door or portal to government services. E-CRM also entails complete case monitoring to ensure timely answers, as well as citizen satisfaction surveys to assess performance.

5.   **E-Collaboration:-** Using web-based collaboration technology to make project planning and implementation easier, as well as government research involving numerous participants in different locations.

Aspects of E- Governance:

E government's ability to bring individuals and companies closer to government is one of its most crucial features.

(1) Information dissemination to the public, basic citizen services such as licence renewals or procuring death, birth, marriage certificates, and income tax filing, as well as citizen assistance for such basic services as education, health care, hospital information, libraries, and the like, are all included in the Government to Citizens (G2C) category.

(2) Government to Business (G2B) promotes e-transaction activities such as e-procurement and the creation of an electronic market place for government purchases, and conducts government procurement tenders via electronic means for the exchange of information and commodities.

(3) Government to Government (G2G) collaboration and communication between government departments and agencies has a direct influence on efficiency and effectiveness. Internal information and commodity trade are also included.

(4) Government to Nonprofit (G2N): This platform enables non-profit organisations, political parties, social groups, and the legislature with information and communication.

(5) Government to Employee (G2E) services that promote efficiency and boost employee activity, such as source training and development. Within government agencies, these ices may also comprise personnel and accounting-related services.

National e-Governance Action Plan

The underlying philosophy of the National e-uovemance Action Plan (NeGAPe) launched by the Central Government at a cost of Rs. 12, 400 crore (S1.3 billion) to common India villages in a hub-and-spoke formation by August 2007 through participation by states, o,000 moment agencies, and corporate is that ICTs empower people at the grassroots level to access information and services effectively. In all of India's 600000 villages, Chandrasekhar plans to install 100,000 broadband-enabled multifunctional computer kiosks or Com Service Centres to allow services such as e-learning, e-teaching, e-health, telemedicine, e-farmintourism, e-entertainment, and e-commerce (2006). Models of e-government that do not enhance the rural delivery system will not contribute much to good governance. As a result, the purpose of e-governance is to improve rural India and bridge the digital divide by making technology available to everyone, regardless of their socioeconomic or cultural background or geographic location. Agriculture has been identified as one of the Mission Mode Projects (MMPs) under the National e-Governance Plan (NeGP), a nationwide initiative to promote e-

governance in the country, due to the important role that IT can play in boosting farmer productivity and incomes while also lowering operational costs.

Section, VI
Policy implications and conclusion

ICT policy should be designed and implemented to address the following characteristics of rural areas: (1) a lack of public services and health and education services (2) a shortage of qualified technical staff (3) geographic or topological features that make it difficult to build a telecommunication network at a reasonable cost (4) harsh climatic conditions that impose equipment constraints (5) limited economic activity centred primarily on agriculture (6) Low per capita earnings, which are usually lower than in urban regions (7) Low population density; and (8) High traffic per telephone line owing to insufficient communications services and large numbers of customers per line. The measure or fit of governance is the amount to which the uneducated, women, impoverished, crippled, and malnourished are represented. Through our efforts, we are able to help the homeless and unemployed. The design of the 1CT project took into account the needs, goals, available resources, and knowledge of the community. Once upon a time, to capture the insane. Giving impoverished people a voice and assisting them in using their knowledge is a major grievance. Directly in participation is a vital input to ICT projects for the construction of long-term sustainable rural e-governance that combats poverty, and it should be included into ICT methods to poverty reduction. Providing direct assistance to the impoverished and disenfranchised, particularly women and girls.

Conclusion

Rural poverty reduction, as well as rural development, are synonymous with inclusive growth, and urban development is impossible without rural development. For rural connection and information processing solutions, use appropriate (reliable, maintainable, and cost-effective) technology. Design of cost-effective distribution stations (kiosks) to allow private entrepreneurs to financially operate services and develop new services for long-term sustainability. Ensure inexpensive broadband internet pricing in rural communities. Rural

communities' capacity to utilise and manage ICT is being built at a faster pace. Support technological advancements in rural connectivity, such as wireless broadband connections and solar-powered systems. Information is more quickly adapted into formats and languages that are appropriate to rural consumers. Rural communities are linked to universities and research institutions through intermediate organisations at the local and subnational levels. To "bridge the digital gap" and improve access to ICTs, efforts should be done. Ascertain the availability of suitable technological and information infrastructure, as well as skilled personnel to advise and show ICT devices and applications. Equip communities with information literacy skills, which are required for mastering new media, the Internet, and multimedia. We must develop information technology in such a manner that a completely untrained impoverished person may quickly grasp it without feeling threatened and use what he has learned to create riches.

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