PART III

**ANALYSIS OF THE PERSONAL INTERVIEW SCHEDULE
FOR EXPERTS**

5.20. POTENTIALITIES OF ICT FOR RURAL DEVELOPMENT IN KERALA

It is well-known fact that information is a powerful tool and it is a valuable commodity required for planning, directing, controlling and decision making for the development of society. Right information to be made available to the right person at the right time at low cost is a very difficult task. But with the help of the latest Information and Communication Technology it is possible to some extent. Information and Communication Technology is a device, which is used to accelerate the process of the development and expected to bring the maximum social advantage.

The Information and Communication Technology can be applied to all the sectors, which are involved in the development of rural areas. The various sectors consists of management, public health, rural marketing, (marketing of agricultural products with the help of internet and the products of small scale and craft industries), women empowerment and rural employment etc. Information and Communication Technology does boost the rural people and increase their awareness.

The perspectives of experts received out of the personal interview have been summarized under the following headings:

5.21. CREATION OF DATABASE OF THE RURAL POPULATION

For first time in India, the BPL (Below Poverty Line) survey, 1998 was conducted and fully digitized by the rural development department. Even though it was fully computerised, it could not be fully made use of the public or other departments due to various reasons. The BPL survey 2002 and it is

being digitized with the assistance of "kudumbashree". Kudumbashree one of the successive programmes of rural development department for the welfare of women has attempting to prepare the databases of the rural people. Civil supplies department conducts the programme. The main aim of the project is to identify the families under Below Poverty Line (BPL) of the society.

5.22. RURAL OPPORTUNITIES

To harness the power of ICT in the knowledge, skill, economic and social empowerment of rural families based on the principle of reaching the unreached and voicing the voiceless. Hence it is highly significant to establish ICT workshops to organise for various aspects linked to real life problems. There will be a pilot initiative to develop a self-sustainable local community portal that will provide an interface for local services like taxi stands, theatre, tourism, information on market prices, market segmentation, chat forums, e-mail services and content related services. This will be hosted on a touch-screen based information kiosk and will be linked up to the backend database on Local body, Registration, Employment Exchange, PWD, the local development portal, FRIENDS for service payments, and other applications that can be linked up. These information kiosks will be located at all the local bodies. Computerisation will be initiated for local small enterprises credit societies, small vendors and cooperative institutions. Children-centered content will be developed by teachers who will be trained for the purpose. This will be curriculum oriented and developed through workshops of teachers and educationists. A local ICT Literacy Centre will be set up and will be linked up through a Ward-level, grama panchayat-level and a joint block-level organisation. Necessary training and orientation will be given by the authority to the persons involved with the activities of the Centre.

5.23. RURAL RESOURCES

Natural resources: water resources, soil resources, manpower-rural employment schemes, database, communication, (internet, e- mail, RD Net,), are resources, which can be utilized for the rural development.

If a farmer knows about the water and soil condition of a particular place he can choose the cultivation method and what he has to cultivate etc. (e.g. cocco, coconut)

5.24. INTEGRATION

ICT can be used, as a very effective tool for the integration of different sectors of rural development a systematic planning at top level should be needed to the effective coordination of these sectors. It does not possible manually. So the coordination can be possible only through the effective utilization of ICT. Integration of different sectors will help to avoid duplication of programmes and it's overlapping in different ways. The demand and production of various products can be assessed by the coordination and it will increase the marketing of products. Panchayat networking is one of the possible programmes for the integration of various sectors of rural development.

5.25. ONGOING PROJECTS

In order to take the full advantage of the mobile and wireless ICT technology as well as dealing with the fluidity of the interaction with the mobile society and a booming mobile usage rates, the Kerala State Government has initiated action to set up about 20 m-Government Services offered by 8 departments identified for pilot level implementation and to deliver services though mobile phones accessible to the citizens in the field, in the street, at home or other convenient locations on a 24 X 7 basis, rather than the users having to visit government offices or log on to the internet portals to access services.

5.26. NETWORK OF THREE TIRE PANCHAYATS

Computerisation of local bodies, being implemented by Information Kerala Mission (IKM) aims at networking 999 grama panchayats, 152 block panchayats, 14 district panchayats, 53 municipalities, 5 corporations, 14 districts planning offices, deputy director of panchayats and 3 regional directors with panchayat directorate, urban affairs directorate, state planning board, rural development commisionate etc. There is an official website developed by the government of Kerala for the integration and information transfer among the panchayat raj institutes or the local self-bodies.

5.27. BARRIERS IN THE APPLICATION OF ICT FOR RURAL DEVELOPMENT IN KERALA

In order to apply Information and Communication Technology for the development of the rural people has lot of hindrance before the local bodies; one of the barriers for proper ICT implementation is lack of sufficient infrastructure at the local level. Lack of proper and systematic training to the staff of the concerned department is another reason for it. The policy makers or the authoritative group should not be specifically envisage how these programmes are properly or effectively reach to the target group.

Finance is another important obstacle for the application of ICT among various sectors of the Rural Development. In the case of agricultural sector the actual beneficiaries are not aware of the application, project and programmes which are developed for the benefit of them. Some of other important constraints notices by the experts are lack of proper administration, assessment, improper record keeping, and discontinuation of projects.

5.27.1. Solutions to overcome these barriers

Experts, working in the field of ICT and Rural Development participated in the study suggested certain solutions to overcome these barriers are:

✱ Systematic planning of the ICT oriented developmental activities at the top level.

✱ Adoption of proper strategy, planning, monitoring, evaluation of records, re-designing of projects by understanding their drawbacks and proper utilization of fund and finally efficient and effective application of Information and Communication Technology.

✱ Farmers should be well informed on the recent developments in their filed. Agro clinics should be popularized. Internet connection should be available to the agro clinics. Information should be provided on weather forecast, fertilizer and manure utilization, doubt clearance can be possible.

✱ Finance allocation should be completely restructured time to time.

✱ Village Information Centres such as "PURA" and "information Kiosks" should be established at village level.

✱ Community Information Centres having networks with all sectors of Rural Development should be established.

✱ Services of Akshaya centres should be extended to all levels of the society.

✱ Health information system should be established so that health workers will get access to the information.

✶   Improving the overall quality of life in the rural areas requires effective and result oriented planning supported by proper management and application of Information and Communication Technology.

5.28. E-GOVERNANCE

▪   E-Government is making available conventional government services to the citizens through internet portals, through internet connected computers, M-Government (Mobile government) is the new strategy and its implementation involving the utilization of all kinds of wireless and mobile technology, services, applications and devices for improving benefits for citizens, business and all government units. The rapid diffusion of mobile ICT gadgets such as laptops, mobile phones, PDAs (Personal Digital Assistants), along with emails, instant messaging and other networking services have rapidly fuelled the mobilization of interaction. People, vehicles, air traffic, post and information have become more and more mobile around the world and our society is increasingly being recognized as a nomadic or mobile society. All these clearly indicate the burgeoning public interest in mobility and various issues relating to 'being mobile.' Mobility is being regarded as a new paradigm in computing. The mobile revolution will soon outpace the Internet revolution. The new paradigm shift will be marked by mobile, "Always- on" citizens, government, as well as the transient on-line communities.

5.29. ICT IN AGRICULTURAL SECTOR

▪   Krishi Bhavan of the Department of Agriculture is expected to function as a centre for excellence of technological awareness enabling it to serve the duel purpose of facilitating technology transfer to the farmers and implement the various support programmes for the

development of targeted group of farmers. But consequent to the transfer of administrative control of the department up to district level to local bodies has led to the gradual neglect agricultural extension system and now it has been reduced to a conduct for channeling inputs/incentives to the farmers. Therefore incorporation of an extension oriented functional system in the department especially at Krishi Bhavan level is now perceived more seriously than ever before. The Krishi Bhavan Information Centres should be technically well equipped with necessary printed materials like brochures, leaflets, teaching aids, database etc. for imparting technical information to the farmers and officers of the Krishi Bhavan in turn should conduct frequent interfaces with them to solve then problems in the agriculture sector. Transfer of technology including method demonstration and farmers interaction programme will be organised as part of the revamping of the Agriculture Extension System. Also in 30 Information Centres, computers were established. Also development of Agricultural Portal has been entrusted to NIC.

▪ Information Centres will be established in all the agriculturally important Panchayats. Information transfer technology facilities through electronic media will be made. Ultimate objective will be to install computers in all the Krishi Bhavans, linking with Block level Assistant Director's office and District level Joint Director's Office, in a phased manner.

▪ Agriculture Data Bank will be established. Basic data on biophysical resources available, current status of the crop production, fertiliser consumption, resource use, market intelligence and development support through various agencies will be collected, compiled and documented.

- Information Technology offers immense potential for dissemination of information in agricultural sector to the farming community. It is very useful for enhancing the efficiency and effectiveness of agricultural extension and transfer of technology activities of the Department of Agriculture. It is therefore proposed to exploit the facilities offered by the Information technology to hasten the agricultural development of Kerala. One of the important measures proposed is to develop an Agricultural Portal and set up Information Kiosks in prominent places in the panchayats so that useful and relevant information pertaining to cultivation of crops can be extended to the farmers. To procure necessary hardware, software and maintenance of computers, assistance of NIC, Keltron will be sought.

- Kerala would benefit from approaching the issue of using ICT in agricultural and rural development by focusing on providing broadband connectivity and a content centric development approach. Sustainable ICT enabled projects for rural development, which includes not only agricultural but health, education and other information services will piggy-back both e-governance and private sector agricultural marketing initiatives. For this, there will be a significant need for restructuring agricultural and rural development institutions and organizations so that they can generate useful and relevant content and partner with the public, private and community sectors to deliver it to rural communities.

5.30. ICT IN HEALTH SECTOR

- National Rural Health Mission aims to increase functional, administrative and financial resources and autonomy to primary health centres. The Primary Health Centres have not been maintained

properly due to lack of steady fund, available locally for repair / refurbishing of infrastructure and basic facilities.

- Thazhekkodu grama panchayat in Malappuram district made a break through in the instant registration of eventing births and deaths in hospitals on 1st November 2006 establishing Hospital Kiosks as a beginning for celebrating the golden jubilee of the formation of Kerala state.

- The concept of Hospital Kiosk is an electronic network established jointly by the grama panchayat and hospitals with the technical assistance of Information Kerala Mission. Under this network births and deaths in hospitals are instantly registered and certificates are issued to the concerned within 24 hour as per the section 12 of birth and death registration Act. The relatives have to submit the relevant information to the hospital authority regarding birth or death in a prescribed form issued by the hospital authority. After scrutiny, it is submitted to the Hospital Kiosk. Making the entry in the computer, the data entry operator gives a copy of the same to the concerned for verification. On examining the copy and ensuring that there is no error, this will be corrected by the operator and report will be sent to the officer concerned in grama panchayat through electronic media. The registrar in grama panchayat verifies the report in computer and then prepares the certificate as per section 12 to be sent to the kiosks in hospital within 24 hours. It is immediately transferred from the kiosks to the person concerned by charging the service fee of Rs.15. The main advantage is if birth or death takes place in hospitals, the people can obtain the certificate under section 12 from the hospital concerned itself within 24 hours. This process has transparency, accuracy and quality of services.

▪ Telemedicine facilitates access to timely, quality and special medical care available at cities for those who are living in rural and remote areas where as we all know, health care facilities are inadequate. It would be highly helpful and exiting if a patient at a remote area gets his case reviewed or gets his disease diagnosed or gets online access to a distant server where all information required by him is stored.

5.30. ICT FOR WOMEN EMPOWERMENT

▪ The government with the help of NGOs, financial institutions, and private agencies should conduct intensive entrepreneurship development programmes for the educated unemployed women. They should be fully equipped to take advantage of the opportunities that the ICT offers them. It is also, necessary to provide short-term training in ICT to the educated unemployed in the state and encourage them to take up self-employment.

▪ ICT provides an enabling potential to improve women's lives. IT can be an important tool in meeting women's basic needs and can provide the access to resources to lead women out of poverty. It is fortunate that the state has an encouraging environment for the promotion and growth of ICT based activities. The state's core competence in education can be transformed into economically rewarding and employable skills by deploying the tools offered by ICT.

▪ It is imperative to ensure that women in rural Kerala understand the significance of ICT and use them for their economic and social empowerment. In the days to come, lack of proper use of ICT becomes

a significant factor in the marginalization of women from the economic, social and political mainstream of their countries.

- Information technology can offer significant opportunities for virtually all girls and women in Kerala, including poor women in rural areas. However, their ability to take advantage of these opportunities is contingent upon conducive policies, an enabling environment in their countries to extent increased educational levels, financial support, and infrastructural support. Hence, efforts should focus on increasing number of women studying IT related subjects in formal schooling and seeking IT training outside of school, as well as related areas to help them fully utilize IT skills.

- There were many poor women in the neighbourhood groups trained in computer applications. They had short-term training in data entry, data processing, desktop publishing (DTP), and IT education. The officials of the Kudumbashree selected and organized them into self-help groups of 10 members each. Entrepreneurship development training was imparted to them under the Kudumbashree project. These women acquired necessary skills for setting up micro-enterprises and more importantly; they learnt to function as a business group. Each group was motivated to set up micro-enterprises for data entry, data processing, and IT education.

5.31. ICT IN EDUCATION SECTOR

- In the case of an ICT curriculum, even more concerns have to be considered. Educational research studies show that programmes of professional development for teachers are most effective if directed to the stage of ICT development reached by schools. The implications of these research findings are that teacher development is best conceived

as an ongoing process, with many professional development activities conducted in schools.

- Education, in its broadest sense, refers to the ways in which people learn skills and gain knowledge and understanding about the world, and about themselves. The government is committed to bring about basic change in the status of women through education. Education helps in the emancipation of women and thereby improving their standard of living. Female literacy rate in Kerala is 87.7, which is higher than the rate in any other Indian state. Emphasis had been laid on enrolling and retention of girl in normal schooling and non-formal education.

5.34. ICT IN COMMUNICATION SECTOR

- As wireless technologies evolve, the coming mobile revolution will bring dramatic and fundamental changes to the world. This revolution has already begun and is gaining momentum. The revolution will impact numerous facets of our daily lives and the way business is conducted. It will provide important data in real time to assist decision makers, exert great influence on communications between businesses and their customers, and transform the way we live our lives.

- Communication is an integral part of development. This is even more so in the case of rural self-government, were people by themselves may not be able to take an active part in their development due to various reasons such as illiteracy or low literacy, scarcity of resources, poor and inadequate infrastructure facilities etc. Method of communication prevailing in rural self-governmental institutions should be lifted to bottom-up communication. A paradigm shift in the

method of communication, having faith in ordinary people and their natural ability to seek and arrive at solutions to the problems confronted with by them is needed. Mechanisms should be devised to ensure participation of rural people, in all stages of communication-need assessment, message selection, treatment, testing, execution, feedback, evaluation and impact assessment.

- With changing environment, the aims of rural communication should go beyond information dissemination. Rather, it should focus on developing the human resources in rural areas. At rural and regional levels, all developmental activities should adequately be supported by people-oriented, need-based and planned communication strategies, in order to enable the rural people to understand their role in the process and thereby ensuring the collaborative functioning of development process between rural self-governments and rural masses.

- It is necessary to use mass media for rural development to meet the felt needs of the people living under diverse socio-economic conditions. However, it should be managed to promote a dialogue between rural communities and various rural self-governmental institutions by facilitating community expression through various forms of indigenous communication technology, including indigenous organizations, folk media, service providers etc.

- Communication support is a vital necessity to inspire and help rural people to take full advantage of available opportunities for their all-round development and thus contributing to the national development.

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