CHAPTER VI

GENERAL FINDINGS, SUGGESTION AND CONCLUSION
6.0. General Overview

The Government of India, State Governments and NGOs have focused to promote the rural development functions but the equation is still in infancy as far as the achievements are concerned. The focus should be on improving information exchange through better community information systems and services so as to provide right information to the right people in the right format and at the right time by way of establishing pilot projects, support rural and agricultural, educational, health care sector, etc. Provide community information services and regional co-ordination of interest strategy for rural development through a total reengineered information system. All schemes available for the upliftment of rural people should be encapsulated and proper information mechanism devised.
In spite of the fact that India has a rich cultural heritage the rural development oriented public library and information service in rural areas is in an embryonic stage. The per capita expenditure on public libraries in our country is about 5 paise only and 10% of the total population of the country covered by public library service. The RD programmes and policy makers in India as well as in the state of Manipur have so far virtually ignored the development of rural public libraries. The government and NGOs are trying to develop rural areas. However, to develop rural areas with the help of rural public libraries and rural information centre is an important task. Legislative support and finance; proper managing power and staff pattern with an organisational structure; building and equipment; books and other resources; computerization and adoption of IT; etc. are the important aspects which can enable public libraries in rural areas to serve as a viable information centre towards sustainable Rural Development and Rural Community Development as well as national development.

Rural library and information center is a community centre around which the cultural life of the rural community resource centre is becoming a potential force in the social, economical and cultural life of the rural community and is playing a very significant role in building up a healthy and progressive rural community. It is the right time for the library professionals to assert themselves by identifying the information needs of our community and providing the same to support speedy rural development and it require large amount of information from various sectors to reach the grass-root level.

It is a great challenge for library and information professionals to bridge the information gap among the rural communities to keep abreast of their information needs mere occupying the chair of Librarian in Public Library is not enough, but at the same time, they have to be more active and innovative by adopting latest
technologies for information transfer to the rural masses. This is possible only when, the Government of India/State Government and NGOs support financially and technically to build and strengthen the information and technological infrastructure among rural libraries. Unlike other countries, India's heart lies in its villages and as such rural libraries/rural information centre should play a pivotal role not only in bridging the digital drive but also in building a well informed and literate society.

Legislative Support and finance; proper managing power and staff pattern with an organizational structure; building and equipments; books and other resources; computerization and adoption of IT; etc. are the important aspects which can enable public libraries and information centres in rural areas to serve as a viable information resource centre towards sustainable Rural Community Development as well as national development. Library and information professionals around the country should work together towards a change in the concept of rural libraries and rural community information centres to be indispensable agencies in improving the quality of rural life.

6.1. Current Scenario in Rural Community Information Environment in India

Efforts are now being made in different parts of the country towards developing the information infrastructures, especially suitable dissemination mechanisms, utilizing information and communication technologies (ICT). These are being done by three types of agencies, viz. (i) government (directly or indirectly)/semi government/autonomous agencies, (ii) non-governmental organizations (NGOs)/associations and (iii) corporate agencies i.e. industrial houses. Sometimes more than one type of agency is also involved in this work. Even a few international agencies are also collaborating in some cases.
6.2. Current Scenario of ICTs in Rural Community Development in Manipur

The Government of Manipur have a vision for all government services accessible to the common man in his locality, throughout his life through a One-stop-shop (integrated service delivery) ensuring efficiency, transparency and reliability at affordable costs to meet the basic needs of the common man. The State Web Portal Manipur – Online will act as a Single Window service Delivery Outlet, will cater to information need of various users like general citizens, government employees etc. The portal will have links to websites/portals of all departments/agencies at State/ District/Sub-division/Block level. The main focus of Manipur – Online is to provide information and integrated services to the citizens, by fetching information from the departmental databases, created and maintained as a part of the back-office computerization by the respective departments. The information provided by the Manipur – Online to citizen will be presented in most easily understood form with local language and multi media support.

The Manipur online portal would provide direct and easy access to the following information of daily usage for the common man 8:

➢ Department wise forms for government services
➢ Health care services
➢ Employment guidance for job seekers
➢ Travel and tourism information
➢ Students centre-colleges, admissions procedures and career counseling etc
➢ Information on facilities for senior citizens
➢ List of non-profit organizations and their activities
➢ Information on consumer courts
➢ Information on government programmes
➢ Human resource databases
➢ Information for entrepreneurs, areas of business
➢ All office orders, memoranda, circulars etc.

6.2.1. Administrative Setup in Manipur

9 Districts, 38 Subdivisions, 122 Circles, 2391 Villages, 33 Towns, 34 Blocks, 165 Panchayats and 19 Nagar panchayats.

State → Districts → Sub Divisions → Circles → Villages
State → Districts → Blocks → Panchayats → Villages
State → Towns/Municipalities

6 Autonomous District Councils with offices at the District Head Quarters.

6.2.2. Telecom Infrastructure

BSNL infrastructure in Manipur has covered large gaps, but spread is still limited. The 2Mbps leased line proposed for District – Sub Division/Block level is not yet available in majority of locations. The Village Public Telephones in Manipur with WiLL technology cannot be used for data Communication/Internet. The OFC line of BSNL to connect Manipur to the rest of the country is expected to be ready in August 2005. About 50% of villages have been provided with telephone link and broadband Internet will be available from BSNL after OFC link is completed in August 2005.

Table No. 6.1
Villages with & without phone link in Manipur

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Total no. of Villages in Manipur Census 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VPTs already installed</td>
</tr>
<tr>
<td>2</td>
<td>VPTs to be installed</td>
</tr>
<tr>
<td>3</td>
<td>MARR VPTs to be replaced</td>
</tr>
<tr>
<td>4</td>
<td>Total</td>
</tr>
<tr>
<td>5</td>
<td>Left out villages</td>
</tr>
<tr>
<td></td>
<td>2391</td>
</tr>
<tr>
<td></td>
<td>773</td>
</tr>
<tr>
<td></td>
<td>876</td>
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<tr>
<td></td>
<td>396</td>
</tr>
<tr>
<td></td>
<td>2045</td>
</tr>
<tr>
<td></td>
<td>346</td>
</tr>
</tbody>
</table>

[Source: UTTAM (C L). Importance of Government – to – Citizen and E-Governance Concept in Networking Programme of Govt. of Manipur. 2-Day Talk – Cum – Seminar. Manipur University, 26-27th May, 2003]
6.2.3. Government ICT Network in Manipur (Existing)

The State capital to all the District Head Quarters are links with VSAT through NICNET. The Internet based links under Community Information Centre (CIC) project linking 33 locations, covering 30 Blocks HQs. The Government Secretariat office has also extended LAN connections to 18 Head of department's locations by wireless. The extended network facility also provided through Dial-up Internet connectivity through NIC State Unit at Imphal.

6.2.4. Government ICT Network in Manipur (Planned)

The Government of Manipur has planned to set-up Common Service Centres for citizen access to information and interaction at village level to ensure better information and communication services in the state and also planning to setting up of a State Wide Area Network (SWAN) with 2 Mbps dedicated line between State capital District Head Quarters, Sub-Divisional HQs and Blocks HQs for the benefit of the its community residing in the state. Augmentation of Secretariat LAN to cover HOD offices using Wireless (RF) links etc are also set-up within a short period.

Figure: 20. Manipur State Wide Area Network (MAN-SWAN)
[Source of Figure: UTTAM (C L). Importance of Government – to – Citizen and E- Governance Concept in Networking Programme of Govt. of Manipur. 2-Day Talk – Cum – Seminar. Manipur University, 26-27th May, 2005]
6.2.5. **Content Development**

The Government of Manipur is trying to develop content development programme with its departments using computers in a decentralized manner, and very few databases has been created. But due to short manpower and machines the data entry and verification of data will take more time and efforts has been made by all the departments. The back-end computerization of applications has started with land records, transport etc. During the short period of time all the departments, cooperatives and any other institution will start content development programme for the benefit and development of the state with transparency among the citizens and government.

6.2.6. **Government Intranet**

The Government of Manipur has started Secretariat Local Area Network under expansion to cover all departments. The use of information and sharing of information among the government departments have started using NIC Intra-GOM application. The Intranet facility also links all district/blocks offices through State Wide Area Network with dedicated 2 Mbps leased lines.

The minimum agenda for ICT implementation for all departments/directorates are:

- Web portal with citizen charter for all departments/directorates.
- E-mail facilities to all officials.
- Personal information system.
- Online monitoring of public grievances/suggestions.
- Public bulletin, tender notices.
- Office procedure automation-file movement and monitoring, pay roll, diary/dispatch etc.
- Telephone and e-mail directory of officers.
• Human resource development.
• Government notices, rules and regulations.
• Training management system.
• Internal financial control at time of budget preparation.

6.2.7. IT Infrastructure

To cater the services and development of information and communication technology in the state, the government has been set up a Software Technology Park of India (STPI) at Imphal during 2005. Through this centre the internet and high speed data communication facility available especially for IT business/industry and it also can act as local hub for networks. Besides these, the government has also taken up more IT infrastructure development in the State.

6.3. Future Strategies and Possibilities

In the situation mentioned above we urgently needs to develop a clear-cut strategy to speedily develop proper information infrastructure in the country. The possible strategy should be three-prong.

[i] Creation of information products or secondary sources relating to information needed in rural development, including area specific databases;

[ii] Creation of sufficient information dissemination centres; and

[iii] Networking of rural information disseminating centres and creation of a rural development information system.

There should be appropriate bodies at different levels to supervise and coordinate the schemes and activities relating to each of the above strategies. The versatile information and communication technologies should be freely harnessed to achieve fast and precise results.
6.4. General Findings

The present study has also revealed that, the villagers are not able to meet various development programmes initiated by the Central and State Government in the State of Manipur due to lack of knowledge and lack of Rural Community Information Dissemination System. The following are some of the important findings of the study offered:

i. The economic activity of the rural community is based on agriculture which is at the subsistence level.

ii. Majority of the villagers are illiterate, economically backward and high rate of poverty and unemployment.

iii. Communication and transportation facilities with the outside State/Country/World are very poor.

iv. Education, health facilities are at the primary level.

v. There is lack of availability of minimum needs, lack of socio-economic infrastructure development and majority of the villagers are not satisfied with the existing infrastructure.

vi. Rural community need varieties of information but the required information in their day to day life are unmet.

vii. Information providing service centre (library/information centre) at the village level is very few and lack of proper information and communication network facility.

viii. Rural community use different medium of information sources. Among them, Radio is the most common information source by the villagers.

ix. Majority of the rural people are not aware of the various development programmes initiated by the different govt. agencies and poor knowledge of new technologies. Lack of government initiatives in rural community development. The gap is wider in between target groups and govt. agencies.
x. Majority of the rural community has emphasized the requirement of good information network system for the benefit of the villagers as well as rural community development.

xi. Local organizations are based primarily on religion, peer groups or traditional social groupings etc.

xii. In spite of poor knowledge on new technology, lack of infrastructure in the villages, rural community needs the overall growth and development of the villages, villagers also want to change their attitude, living standard, and like to become knowledge based or information oriented society in this digital information age.

6.5. The Backdrop

Research study is a systematic way to solve the research problem. The previous chapter (Chapter-V) has critically examined: [i] the information needs of the rural people; [ii] the information channels, sources of information and medium of getting information to meet their information needs; [iii] availability of minimum needs at the villages; [iv] the information on general awareness; [v] the information users; [vi] the rural information environment and impact of new technologies; and [vii] the problem faced by them and satisfaction of the existing information service centres in connection with the community information needs in rural areas of Manipur. The present study also critically examined the information needs of the user's communities, different channels, sources and services used by them for disseminating and retrieving information and problems faced by them in the process.

The present study has also revealed that, the rural scenario of the State, one assumption which can be made is that the rural community is at the most basic level. The characteristics typical of this environment will include the following: [i]
agriculture is the major occupation of the villagers; [ii] illiterate is high and economically backward; [iii] education, health care and other community development facilities are at the primary level; [iv] lack of knowledge about the information, information need and new technology; [v] only few library and information centre facility are available; [vi] rural people are not aware of the various development programmes initiated by the different govt. agencies; and [vii] lack of government initiatives in rural community development programmes.

The finding of present study, thus prove right the hypothesis drawn at the outset that:

[i] The majority of the rural people are illiterate and economically backward. [ii] Are not aware of “Information”, “Information Needs”, and “Information Literacy”. Majority of the rural people are not aware about the modern technology/development. They are afraid of modern technology. [iii] Numbers of information service centre in the rural areas are very few and not functional. [iv] The gap is wider in between the rural people and government departments meant for rural development. [v] The total change in the attitude of rural people is highly required to develop the rural economy as well as the total growth of the state.

The critical examination of the rural community information needs, the generalization of the finding/observation and suggestions have also disclosed the information support and assistance for [i] agriculture and their related issues; [ii] better health, family welfare, water supply and sanitation; [iii] employment and self employment plans and programme; [iv] education and its related areas; [v] animal husbandry, common diseases and their cure in animals; [vi] prevention and control of social problems, social security, environmental degradation; [vii] govt. plans and programme, public information, credit system, information on people,
culture, legal aids and recreational facilities etc. In a State of Manipur with agro-based rural economy, rural development can play a major role in national development. Therefore, quick and easy access to information is vital to the development of rural areas.

The observations of the present study has called for improving [i] the socio-economic conditions and their living standards; [ii] the minimum needs programme of the rural community; [iii] the various welfare programme should be facilitated at the village level; [iv] the information and communication network system at various level; and [v] the existing library and information centre and create rural information centre with audio-visual aids.

The present study has also seriously considered the lack of proper information service centres at the village level, rural people are not getting the right information at the right time, and this will lead to the slow development of rural mass. In view of the failure of the present Rural Library and Rural Community Information System and non-existent of the Rural Development Information Network System in the Villages of Manipur, the investigator has suggested different model (as described in Chapter IV), if the situation warrants in order to meet all the information requirements of village people. On the basis of the existing infrastructure, and considering the needs and requirement of the rural communities, views and the suggestions of the user communities, current trends/scenario at the different states/country, the investigator has finally suggested a model "Manipur Rural Information Network System" (MRINS) has been proposed and described in details in this Chapter to chalk out the action plan, facilities and services to be made available in the rural areas of Manipur.
6.6. Manipur Rural Information Network System: A Plan Proposal

After discussing and analyzing the situation mentioned above, there is urgent need to develop a clear-cut and proper Manipur Rural Information Networks System for the overall improvement of the rural community and community information system and services in the rural areas of the State. Many eminent persons have repeatedly stated that Manipur lives in villages. Therefore, no developmental efforts can be successful unless it addresses rural areas and its people\textsuperscript{11}. So far the Government of Manipur or any other govt. agencies/private farms/semi-government organizations/NGOs, no attempt has been made to suggest a Rural Information Network System.

Therefore, the investigator has suggested a conceptual model of Manipur Rural Information Network System which will lead to bringing a wider coordination and exchange of information as well as to access whatever information required by the rural community. It has also been suggested that for developing such an information system, a feasibility study should be undertaken at pre-planning phase to examine the technical viability. The system may be viewed as a multi-tier structure consisting of a national information facility, preferably located in an existing information centre with a good infrastructure. A state informational facility located in each state will be determined. This will serve both as information facility at the State level and as an agency coordinating the functioning of the district information facilities, block and village information facilities\textsuperscript{12}.

6.6.1. Conceptual Model of Manipur Rural Information Networks System (MRINS)

The conceptual model of MRINS contains the organizational structure, objectives, functions, financial policy and budget, monitoring and implementation etc., which is explained in details.
6.6.2. Design for Manipur Rural Information Network System (MRINS)

The model suggested in this study is feasible only with the cooperative venture of all the major departments of the government, professional associations, learned societies/bodies, NGOs, rural populace, hence it is considered as a very ambitious proposal.

The investigator first planned to suggest a model for an independent body to avoid the complication of involving all the govt. departments, associations, societies, NGOs etc. mentioned above. But the cost of establishing and maintaining such an independent body seems to be quite enormous. Establishing an independent body without the involvement of the government agencies will add to the financial constraints. Hence, the researcher decided to suggest a cost-effective model for Manipur Rural Information Network System.
6.6.3. Major Policy of MRINS

The major policy of this MRINS will focus on collection, organisation, management, coordination, development and implementation, and dissemination of information regarding various government welfare schemes/programmes, rural development programme, achievement and programme initiated by the different NGOs/Govt. undertaking agencies etc. to the whole of rural population in Manipur and uplift their social, political, economical and educational development.
6.6.4. Objective of MRINS

The following are the main objective of the MRINS:

i] Establishment of Rural Information Resource Centre along with the establishment of 34 Rural Information Centres/Village Information Centres.

ii] Establishment of Networks at local, regional, national and international level.

iii] Creation of website

iv] Creation of Village level databases.

v] Training the village authority (pradhan, panchayat members, adhaksha, blocks and village officials, rural people etc) in collection and dissemination of information services to the villagers.

vi] Coordination and cooperation between govt. agencies/officials and the rural population.

vii] Establishing contact between the concerned government officials and the rural communities.

viii] To provide information support for rural development through the establishment of Rural/Village Information Centres in the rural areas of Manipur State.

ix] To identify information needs in support of on-going development programmes and village planning.

x] To contact local and national sources of needed rural development information, and to adapt and use the knowledge acquired for the benefit of the target groups.

xi] To improve the delivery and integration of technical information into on-going rural development programmes and village level planning.

xii] To train local organizations to continue and provide basic information services to the villagers.
To make use of different types of media for the purpose of providing information.

Besides these, it will cover a fairly wide and diverse area such as (a) literacy programme as well as information literacy awareness programme, (b) information support (to the rural people), (c) process of socio-economic transformation of poor villages, (d) community health, hygiene, sanitation, family welfare etc, (e) income generation activities, (f) land and water management, (g) agriculture and horticulture, (h) protection of environment, (i) development and welfare of women and children, (j) institution of social and cultural change.

6.6.5. Establishment of 34 Block Manipur Rural Information Network

The Manipur State consists of nine districts. The proposed model consist 9 (nine) District Rural Information Officer (DRIO) and 34 Block Rural Information Officer (BRIIO). Effective coordination of the activities among these nine DRI Officers and thirty-four BRI Officers require a network oriented strategy. Hence, network will be established through Internet and each district and block Rural Information Officer will have the access to the database and disseminate the information at village level with the extensive network connectivity and they could forward any information regarding the applicants and beneficiaries to the Manipur Rural Information Network System Head Office.

The Head Office of the proposed model will be situated in Imphal, the capital of Manipur and each district and block will have a district MRINS as well as block MRINS which will be connected to the head office through Internet.
6.6.6. Functions of Manipur Rural Information Network System

The MRINS will have the following main functions:

(i) To conduct a survey to determine the specific information required by the rural community.

(ii) To infuse awareness among the rural people in the use of the information sources.

(iii) To create awareness about the various schemes among the villagers.

(iv) To collect, organize process and disseminate the information to the rural villagers.

(v) To analyze the data collected which reveals the feedback regarding the extent of benefit and uses of information by the villagers.

(vi) To indicate the future possibilities and emerging ICT trends for the development of the rural people of Manipur.

6.6.7. Leadership and Organizing Responsibility

Since the proposal is feasible, the government and all the departments, organizations, institutions, local and national bodies need a committee to provide all kinds of support for setting up the MRINS so that the leadership and organizational responsibility of the project should go forward to provide optimum level of service and achieve the goal and objectives of the proposed project.

6.6.8. Financial Policy

The government (departments/agencies) will incur the expenditure with co-venture for providing funds for the various schemes. Without the government initiatives and financial assistance from the various organizations, the suggested model of Manipur Rural Information Network System is not achieving its target. As described above in the organizational structure, the financial policy under the
government agencies should provide a provision to draw the budget expenditure and should openly support.

6.6.9. Organisation and Network Management

The organization and network management, programme control, operation, data assemble and productions are extremely complicated which will affect the delivery of community information within the proposed system. Unplanned development of information system has become obstacles rather than promoters of development. So, in such cases information systems and services had been introduced haphazardly according to the will and capability of individual organizations.

6.6.10. Policy Making and Administrative Bodies

The proposed model has separate division under the Chief Information Commissioner. The division may have Director, Deputy and Assistant Director, District/Sub-Divisional/Block Information Officer and Panchayat members may be the administrative body as noted below:

Chairman: Chief Information Commissioner

Convenor: Director

Co-Convenor: Deputy Director/Asst. Director

Members: Director(s) of Health & Family Welfare, Education, Agriculture, Rural Development & Panchayati Raj, Science & Technology, DIPR, PHED, Art & Culture, PWD, NIC etc.

Permanent Invitees: Director of NIRD, National Library, Central Reference Library, VCs of Central & State Universities, Librarian of Central & State Universities, Representatives from other important Bodies, Professional Associations etc.
Executive Body: District/Block Information officer, Librarians of the College Library, Information Scientists, Documentation Officers, Adhaksha of the Panchayat.

Besides, these, there are State Level Monitoring Cell, Advisory Committee, Finance Committee, Extension & Information Council for guiding and advising for determining plans and policies, fixing the norms and standards, rules and regulations, preparing budget and allocating funds, appointing team of experts if necessary, monitoring the process and outcome of the work, counseling and providing necessary advice to the subordinate staffs.

6.6.11. The Role of MRINS

Information and Communication Technologies (ICTs) are becoming the engines of human and economic development. The growth of information technology and its information networks system and its impact on all parts of the world from individual’s households to organizational and economical, political and social levels is imminent. In the context of Manipur state, it is known and apparent that, disparities exist in formation access by the nature of income, geographical location, language, poverty, illiteracy, education, minority status etc. This information gap is supposed to be overcome by successful implementation of Manipur Rural Information Network System (MRINS), but it is widening even more for small social service organizations in the nonprofit sector where rural community services are in demand for workforce development and lifelong learning opportunities in global economy and changing world. It is recognized that Rural Information and Communication Network System is a tool which could be manipulated effectively for information resource development and key to bridging new information technology/network connections in the information poor societies.
The Manipur Rural Information Network encompasses all ICTs which are the key innovation in computer networks ranging from Intranet to the Internet and it will create a wealth of new digital networks connections:

- connections between state (S2S)-permitting better development and development
- connections within and between government (G2G)-permitting joined up thinking
- connections between government and citizens (G2C)-strengthening accountability and responsibility
- connections between government and business/NGOs (G2B)-transforming service delivery
- connections within and between business (B2B)
- connections within and between institutions and civil societies (I2S)-promoting learning and acquiring knowledge
- connections within and between citizens and communities (C2C)-building social and economic development
- connections within and between computer network and community service centre (CNs2CSCs)-promoting awareness and development of IT knowledge among the communities 13.

6.6.12. Plan and Methodology of MRINS

The plan and methodology of the proposed model has adopted to carry out this study involves various processes, which have been categorized under three phases.
6.6.12.1. Phase I

At the first phase of the Network Model, the necessary functions to be performed are:

- Assessment of the target groups
- Identifying the information needs and difficulties of the villagers
- Collection of data and feasibility study
- Assessment of existing information infrastructure
- Assessment of on-going programme for rural development
- Assessment of information support system for rural people

6.6.12.2. Phase II

At the second stage, the necessary works to be carried out are:

- Suggesting new project proposal
- Designing the project model
- Mobilizing the financial resources to seek additional funds for establishing the project
- Determining plans and policies and concerned agencies to initiate and increase their range of suitable resources to cater the needs and requirements of the rural community
- Appointment of Director and necessary technical and other staffs
- Appointment of Board of Management, Finance Committee, Advisory Committee, Extension & Information Council etc
- Appointment of Expert Team for guidance and advice to initiate and continuous development with the dissemination of rural community information by calling for community participation
- Developing necessary infrastructures and technological requirements and also expand the present public library &
information services to include wide range of information services to the rural community.

- Developing existing libraries, information centres, community information centres with new ICT facilities and also coordinate the existing information services provided by the various government & non-government agencies
- Setting up new Rural Community Information Centres with the connectivity of networks at the village level with regular activities.

6.6.12.3. Phase III

At the third stage, the functions to be taken up are:

- Monitoring and implementing the project
- Providing information dissemination mechanism support system
- Monitoring the outcome frequently
- Evaluating the outcome of Phase II
- Conducting cost-benefit analysis
- Creation of databases in local languages
- Getting the feedback from the villagers
- Analyzing the feedback
- Developing the network at local, regional, national and international level.
[C.D. Community Development, T.D. Tribal Development, RINC. Rural Information Network Centre]

Figure: 22. Proposed Model of Manipur Rural Information Network System
6.7. Proposed Integrated Rural Community Information Network System (RCINS)

In the Integrated Network of RCINS, the central hub of the network should be located at Imphal which will distribute to all the districts which are connected to the network environment with Internet facility. The central control room at Imphal will have a VSAT through Satellite links and coordinate with other district head quarters. The central control room will perform administration, coordination, controlling, networking, and monitoring as well as implementation functions. This network will link all the District H.Q. Divisional/Blocks H.Q with the extended networks to all the villages/panchayat for accessioning and disseminating information for the needs and requirements of the rural community.

The proposed network should have regional, national, and international links at various level and also strengthened at the grass root i.e. village level for the enhancement of the village people in order to develop knowledge based society in this digital information era.
Figure 23. Proposed Integrated Network Model of RCINS at State Level.

Ministry of Rural Development (MoRD), Govt. of India sponsors various developmental schemes that aim at improving the standard of living of people in rural areas. These schemes are monitored by MoRD and State Agencies, Coordinates by local administration in districts and implemented by agencies at Block level.

National Information Centre (NIC), Ministry of Information Technology, Govt. of India also introduced IT to facilitate planning, monitoring and exchange of information between various agencies in Rural Community Development administration 14.

6.8.1. Monitoring the Proposed Model

The Rural Information Network System administration, with MoRD and Ministry of Information Technology as the apex body and the funding agency (Central & State Govt. agencies/ University Grant-Commission (UGC)/ other Govt. Institutions) will act as the Central hub and the decentralized architecture with Central / State University in the State along with the State Rural Development Department(SRDD), State Institute of Rural Development (SIRD), District Rural Development Agencies (DRDA)/Zilla Parishads (ZPs) and Block Development Offices (BDOs) at State, District and Block levels respectively. Whereas MoRD along with the SRDD monitors the progress of the rural community development programmes. On the other hand NIC along with the SIRD monitors and implement the project. DRDAs/ZPs are the main coordinating agencies for these rural community development programmes and information network administration of the project and BDOs along with other Local Departments/Panchayats are responsible for executing the programmes and projects.
Likewise, the Integrated Rural Community Information Network System introduced to initiate a platform for making information network system with the coordination and cooperation of NIC along with MoRD at National level and which will transform at State level with State NIC Centre along with State RD department to meet the needs and requirements of information by the rural community in the State of Manipur.

6.8.2. Implementation of the Proposed Model

The proposed model will be implemented by a consortium of NIC, UGC, NIRD and State Rural Development Department (SRDD), State Institute of Panchayati Rai & Rural Development (SIPRARD), DRDA under the coordination of the Ministry of Rural Development and Ministry of Information Technology, Govt. of India. Decentralization, major responsibility for planning, execution and supervision will be places at the State Level Monitoring Cell and Coordinating Unit will be established by Advisory Committee under the supervision of Chief Secretary of the State.

The funding agency will act as Finance Coordination Committee and it should monitor the overall outcome/evaluation and cost-benefit analysis of the project and also analyze the feedback of the project. The constituent organizations/departments/institutions which are getting fund from the higher authority may take responsibility to find out the assessment of the project, collection of data, assessment of on-going programme for rural development, assessment of information support system, suggesting new project proposal, designing the project model, determining plans and policies with the concerned agencies to initiate the project. Appointment of necessary technical and other staff to assists the Project Implementation Committee.
6.8.2.1. Institutional Responsibilities for Implementation of Project

The overall roles and responsibilities of the various agencies involved in the project are:

(A) National Level

[i] The Ministry of Rural Development and Ministry of Information Technology are the apex body and executing agency for the project and is the highest administrative agent for overall monitoring and implementation.

[ii] NIRD, NIC and UGC will assist responsibility for the recruiting of an independent monitoring organization to carry out annual assessments of the project.

(B) State Level

[i] The Department of Rural Development & Department of Science and Technology is the coordinating agencies and administrative agent for planning and preparing at the State level.

[ii] SIPRARD, Directorate of Information & Public Relation; Dept. of Art & Culture; University and other organizations and NIC State Unit will assist in the programme implementation and responsibility to set –up the project infrastructure and physical progress.

(C) District Level/Block Level

[i] District Rural Development Agency (DRDA) and Zilla Parishads (ZPs) will provide technical & personnel support to sort out the required preparation and implementation of the project

[ii] Block Development Offices (BDOs)/Tribal Development Offices (TDOs) and concerned authority will regularly supervise along with other safeguard requirements of the project.
(D) Community/Village Level

[i] Village Authority and Panchayat members including Pradhans will participate in all the stages of project work and this will be done through public meetings, dissemination of project information, and feedback from the community.

[ii] Establishment of Community Based Committee for Rural Information Infrastructure maintenance in order to provide maximum input and maximum useful output information at the grass root level.

6.8.3. Information Infrastructure Development of the Proposed Model

Existing information infrastructure in rural areas require developing specific application adapted to the lack of continous and high speed information network connections. But there are challenges at many different levels regarding the application of IT/ICT related technologies for rural community development.

The State Govt. shall encourage an active participation for establishment of backbone rural community development network infrastructure including satellite communication and wireless communication technologies will create adequate bandwidth for meeting mass connectivity needs and will facilitate IT-enabled services. The State Govt. shall also promote NGOs initiative in creating dedicated Rural Information Technology Network Infrastructure for use by research institutions, libraries and information centres, educational institutions, universities, rural local organizations etc.

The successful implantations of infrastructure in the rural areas depend on the innovative abilities of the people and the people's institutions 16.

- Participation of villagers should be ensured in the execution and monitoring of projects.
- Sharing of cost should be encouraged so that there are people's involvements.
- Senior citizens, youth leaders, mahila mandals, self help groups, non-governmental organizations, elected representatives can be nominated to the infrastructure monitoring committee.
- All relevant information has to be displayed on the notice board of the panchayat/village authority.
- Work estimate and infrastructure development should be in local language and to be made available to all members of the committee and take consent from the rural community.
- Orientation, training, awareness programme should be conducted to understand the project estimates, requirements, benefit and time schedule.
- Setting up a Permanent Committee on Manipur Rural Information Network System.
- Lay down a uniform policy for funding the infrastructure and specifying the norms on implementation & development of the project.
- To lay down priorities and time frames for the development of infrastructures.

6.8.3.1. Infrastructural Implementation & Monitoring for the Proposed Model

- The National Policy on Rural Development Information Technology for Rural Areas will be followed by a National Plan of Action with quantifiable objectives for Rural Information Technologies in Rural Areas and supported by adequate funding.
- At the National Level, the project plan infrastructure will be monitored periodically by an Inter Ministerial Council headed by the coordination
of Ministry of Rural Development and Ministry of Information Technology. The members of the Monitoring Committee would comprise representatives from Ministry of Education, Ministry of Agriculture, Ministry of DONER, Chairman of UGC, Director of NIRD/National Library, nominee represent from NIC etc.

- At the State Level, the Department of Rural Development and Panchayati Raj and Department of Science & Technology could be sensitized to place greater emphasis on technological infrastructure development. A committee headed by Minister of Rural Development, Minister of Science & Technology, Chief Secretary, Vice Chancellor of State (Central University), Director of State Institute of Pancyatati Raj and Rural Development (SIPRARD), NICNET State Unit would be constituted to implement the infrastructure policy and plan of action in the State.

- The infrastructure development has to percolate to the grass roots to be effective and successful. Hence, at the District level, a committee headed by the Commissioner/Deputy Commissioner to draw up and implement the District Plan of Action will be constituted with quantifiable targets\(^{17}\).

6.8.3.2. Requirements of IT Related Infrastructure for MRINS

The requirement of IT related infrastructures of the network system are:

<table>
<thead>
<tr>
<th>Computing Devices</th>
<th>Power Supplies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop</td>
<td>Switch mode power supplies</td>
</tr>
<tr>
<td>Personal Computer</td>
<td>Uninterrupted Power supplies</td>
</tr>
<tr>
<td>Servers</td>
<td>Networking/Cabling &amp; related</td>
</tr>
<tr>
<td>Work station</td>
<td>Accessories</td>
</tr>
</tbody>
</table>
- Nodes
- Terminals
- Network P.C.

**Network Controller/Memories**
- Network Interface Card/LAN Card
- Adaptor-Ethernet
- Memory Card
- Central Processing Unit

**Storage Units**
- Hard Disk Drives
- Floppy Disk Drives
- C.D. ROM Drives
- Other Digital Storage Devices

**Others**
- Key Board
- Monitor
- Mouse
- Multi-media Kits

**Printers and Output Devices**
- Dot matrix
- Laserjet
- Inkjet
- Deskjet
- Line Printers

**Networking Products**
- Hubs
- Routers

**Consumables Includes**
- Fibre cable
- Cables/Cat cables
- Connectors, Terminal blocks
- Caching & Crimping Machines
- C.D. ROM/Compact Disk
- Floppy Disk
- Ribbons
- Toners
- Inkjet Cartridges
- Ink for Output devices

**Electronic Components**
- Printed Circuit Board
- Transistors
- Integrated Circuits
- Diodes
- Resistors
- Capacitors
- Switches/ (On/Off etc)
- Plugs/sockets
- Connectors
- Microphones/Speakers
- Fuses

**Telecommunication Equipment**

**includes**
- Telephones
- Videophones
- Fascimile machines/Fax cards
- Tele-printers/telex machine
- EPABX/Telephone exchange
- Multiplexers
6.8.3.3. Requirements of Physical Infrastructure for MRINS

The requirements of physical infrastructures of the network system are:

[i] Physical Settlement includes
[i] Land Acquisition; [ii] Field Survey & Allotment; and [iii] Technical Feasibility Study

[ii] Physical Infrastructure as Whole includes

[iii] Physical Infrastructure as Specific includes
[vii] Furniture & Accessories; [viii] Light Fitting & Accessories; and [ix] Stationary items etc.

6.8.4. Human Resource Development for MRINS

Human Resource Development (HRD) is one of the most important and regular activities of the organization. In the present global context, HRD plays an important role in planning and implementing of Integrated Rural Community Development programmes in the developing countries. Often, it has been realized
that shortage of skilled manpower constrains developing countries particularly in rural areas to implement their development programmes effectively. No country/state can realize its full economic potentials without fully harnessing the human resources.

Therefore, HRD is one of the major contributors in accelerating socio-economic growth and other IT and knowledge oriented sectors. Thus, keeping in view of the shortage of technical manpower, technical know-how and skill, on the one hand and the need to develop human resources on the other.

In general, rural areas suffer from capacity constraints linked to a low skill base. A separate human resource development strategy will have to be developed to increase the skill base in rural areas, both at the community and local government levels. The plan should be co-coordinated and linked into the wider ministerial initiative on human resource development for India as a whole. The Rural Human Resource Development master plan should also include in the basic education programme and the development of technical skills as well as a social plan to manage retrenchments and job losses affecting rural areas.

Given the paucity of skills in rural areas, National and State departments will have to facilitate short-term measures to supplement the available capacity. Deployment and even transfer of personnel to rural areas in support of the Manipur Rural Information Network System (MRINS), targeting both hard and soft skills, may be necessary. Where appropriate, the goodwill of experienced citizens who seek to contribute on a voluntary basis should also be harnessed. New opportunities for volunteers will thus be created. Involving the youth through the creation of a youth core, which could combine service with training and mentorship, holds particular promise.
On the intermediate long term, however, capacity constraints will have to be addressed through education and training. In this context, the rural development information strategy will constitute deliberate and conscious choices and interventions that government will pursue in all spheres. The education and training programmes will facilitate the development of community-based organizations and non-government organizations should be encouraged. Existing Gram Panchayats (GPs) and NGOs can also play meaningful roles in assisting with capacity building efforts. Most of these immediate training and capacity building priorities can be addressed through redirecting existing programmes, but some new or revised programmes are also needed and should be initiated through the following aspects:

- Recruit appropriate technical manpower and skill staffs.
- Recruit capacity building consultant.
- Recruit training consultants and institutions.
- Organize specialized training programmes in various fields' specially Rural Community Development and Rural Development Human Resource programmes.
- Establish Training Centres with the coordination of other institutions/organizations, govt. agencies etc.
- Rural Development & ICT based literacy programmes in govt. schools and colleges shall be introduce to cope up IT related knowledge and also introduce Rural Community Development Information Network courses in the academic curriculum.
- Assess human and financial resources available in the relevant local government agencies, identify the gap between the existing functions and proposed responsibilities, and prepare an institutional and human resource development plan, including training needs
assessment, to fill in the identified gap. Design short training course on the use of rural development information and participatory methods together with rural community.

6.8.4.1. Requirements of Human Resources for MRINS

The requirements of human resource development of the network system are:

[i] **Skill Manpower includes**

[i] Technical Manpower; [ii] Skill Professionals; [iii] Training, Orientation, workshop, Seminar to know the resources & work to be perform; [iv] Qualified & Professionally trained manpower to guide line the skill & technical staff

[ii] **Un-skill Manpower includes**

- Subordinate staff to support skill & technical staff

6.9. **Suggestions**

The following suggestions based on the findings of the study are offered, which may contribute to the effective implementation of the present study.

- **Creation and promotion of rural public libraries/rural community information resource centre/rural information centre:** The responsibility of development of library and community information system/rural information system is the concern of State Government. Constitutionally the subject ‘LIBRARIES’, ‘INFORMATION CENTRE’ is included in the State List.

- **There should be good Public Library System in each and every village to meet the need for information by the rural communities at village level, the State Government should urgently implement the Manipur Public Libraries Act, which was passed in 1988.**
An information network should be developed by gradually covering all the villages, or at least the larger villages. Rural Community Information Service Centre/Rural Information Centre should be set up in villages of the State.

Extensive IT awareness programmes should be extended at the village level through rural libraries and information centres to promote and motivate the rural people to use and access information whatever they required.

There should be a wider and effective programme to make the citizens not only traditionally literate but also information literate. It is suggested that the different educational institutions and government agencies of the State can provide all the technical skills necessary for the creation and management of the IT based Rural Community Information Resource Centre or Rural Information Centre or Rural Library and Information Centre in the State of Manipur.

It is suggested that the Information Centres, Community Information Centres, Libraries etc. should have content preparation programmes including continuous updation on new technologies. Content preparation requires the knowledge of the subject, knowledge of the concerned rural areas so as to make the content area specific; knowledge of the local dialects and the technologies used so as to communicate better and the basic knowledge of creation of multimedia packages.

Content transmission at this stage that the Internet and Computer come into the picture. The Community Information Centres, Information Centres and Libraries will be enabled to log on to these institution websites for the different information of their needs and content packages can be made available from the web site or online through Internet.
Library professionals should themselves join hands to come forward to improve the library services with help of emerging ICT applications for enhancing the existing services and for optimum exploitation and utilization of the available resources.

At the Rural Information Centres/Rural Community Information Resource Centres, there is little need for the type of information that is widely available on the Internet. Although the farmers and other villagers who visit the centres do have access to the Internet, the material they need is to be far more localized. Accordingly, rather than simply providing access to the Internet, the information centre may construct (and update on a frequent basis) databases of local information, usually in local language and should equip audio-visual aids in the centre.

The present study has seriously considered the lack of proper information service centres at the village level, rural people are not getting the right information at the right time, and this will lead to the slow development of the rural mass. Hence, it urges the State Government to implement the ICT networks infrastructure at village level.

Create a vision and implementation plan, priority of actions, ownership policies and information centres should bring under common network policies “State Information Policy” to support “National Information Policy”.

Create access bandwidth “State Wide Area Networks”, Satellite Networks to promote the web based network information service in rural areas.

Create the common IT infrastructure and all the rural development libraries should be responsible for the development of rural public library and rural information centre to meet the needs and requirements of the rural people. And
also create local IT capability service centre to equip people with latest skills necessary to develop and manage new system.

 tạo appropriate "Rural Community Information Policy to cater the needs of the rural community.

 Government should pen down State Policy of Library and Information System and strengthening the existing information infrastructure, to make knowledge based society and where information should reach to all the section of the society.

 A legislator and library leader should constitute to create a clear vision plan for the Rural Digital Library or Rural Information Kiosk for Rural Development in rural areas of state and country as a whole.

 State Institute of Rural Development (SIRD) should be strengthened and with National Institute of Rural Development (NIRD) as the apex body and all the rural development libraries should be networked in a pyramidal structure. Further, public libraries, information centres, community information centres should cooperate with the village libraries and information centres at the local level.

 A Model of Rural Information Network System as well as Integrated Information Network System-to enhance all round development in this modern Digital Information Age.

 Establish Manipur Rural Information Technology Park to spearhead research, training and manpower capacity development in rural areas and a dedicated Rural Development Information Centre in the University should be setup for providing training, awareness of the staffs (including Officers, BDOs, Adhaksha, Pradhans, Panchayat members) and rural communities which are willing to take knowledge & information regarding the project programme and other useful information resources.
Universities, other educational institutions, vocational training centres, technical education centres, community information centres and libraries and information centres will be encouraged to create people’s motivation in order to enable access and use of information resources through promotion of distance education and training facility in the rural areas.

The Central and State Government shall promote networking of all blocks and other centres of research and learning. The Manipur Web Portal (Wide Area Network) shall be made freely available for this initiative so that the rural community will be trained in information retrieval and dissemination. In order to communicate and exchange/transmission of information to all the villagers, government should create links with bandwidth information dissemination system.

Active participation of government especially panchayat officials, gram panchayat, government employee, village social workers must help in spreading information relating to govt. schemes specially made for the benefit of rural folk.

Audio-visual means of information communication must be kept in rural public library, information centres, community information centres in villages, to overcome the handicaps suffered by illiterate people in free flow of information.

The concern Government department’s mouthpiece of the government policies and programmes. They should open information centres in every panchayat and they should screen regularly films on rural development programmes.

There is an immediate necessity to build up the rural information centres as integral part of the public library system. In developing a network of information transfer to rural and backward areas the public library system shall be considered as a focal point.
Separate budget should be allocated for library services as well as rural information services under rural library and information programme funds. In this regard, the government should give more funds for the development of rural community libraries and rural community information centres.

6.10. Application of the study

On the basis of the findings of the study, there are three potential application, viz.,

i. Provide information support system and disseminate the required information to the rural mass.

ii. Government agencies/semi-government agencies /NOGs can impart the establishment of information provider service centre in rural area.

iii. Establishment of Rural Information Network System and implement by the Government agencies with the integration of new Information and Communication Technology (ICT) facility.

These three points for applications will no doubt ensure effective and well balanced Information Support System and result in better development of rural mass in the use of required information at village level.

6.11. Concluding Observation

In spite of these development, planned progress and slow progress of urbanization in the State, the village scenario has not changed much since 1972 when Manipur become a State of India. Still there are many-with no drinking water facilities, sanitation facilities, employment opportunities and proper connectivity in terms of roads, communication, health, and educational facilities worth mentioning. Added to this, the village society is divided with caste complications,
religious bigotry and various other dissensions. Besides, there are problems in each category of the society like small farmers have difficulty in obtaining reliable seeds, proper irrigation facilities, input at fair prices and credit to purchase these inputs; educated youth have difficulty in finding suitable employment; and women and other disadvantaged groups in the villages have yet to get their fair share in the process of development.

The present study on focused the Information Needs of the Rural Community for the development of rural areas of Manipur. In fact a village can progress only when every resident tries to develop himself or herself – “Information Support” is, therefore, required not only at the organization level, but also at the individual level. While, organizations require basic and background information for drawing and implementing realistic developmental schemes, the citizens require information about education, healthcare, agriculture, social, political and their avocation to improve their life, such information support is awfully inadequate in our State.

In view of the information needs for rural community development, the first step is to establish Rural Library Information Network System/ Integrated Rural Community Information Resource Centre/Integrated Rural Development Information Centres which will collect relevant rural data, process them and provide information dissemination services through local level units.

The needs and requirements of the “Rural Information Network System” would work as a platform for distribution of rural information to right users. The application of ICTs is a very important tool now-a-days for community as well as rural development. Rural areas, till now have less access to technology, information and services (almost negligible). They require information about more productive agricultural practices, alternative crops, animal husbandry, educational,
preventive health care, roads and communication, potential for value addition etc. Internet and computers enable us to ensure that rural populace has an equal access to information about opportunities and hence development of rural areas can proceed at a much faster rate. Providing easy access to information on services and technologies will help the rural residents, regardless of their occupation or economic status, take informed decisions. State government should implement the library legislation in the state with proper ICT infrastructure. Rural libraries, information centres, community information centres can impart training in use of ICT in order to fulfill the day-to-day information needs of the rural people. The major problems of the rural areas are lack of proper information communication infrastructure, rural library own community information centre, economically backward, high rate of illiteracy, employment opportunities, proper educational infrastructure facilities, health awareness and health care, proper road and transportation facilities, distance and dispersion etc. with nearly 70% of the population residing in rural and remote areas in the State, the information network/village information network should extend and contents have to reach these areas if there has to be any substantial change in the rate of the development.

Finally to conclude, the investigator feels that there is a need for Rural Information Centers as well as Rural Information Network System in the villages of Manipur from where people can obtain information of interest and use to them. It can be a centre where people can take part in learning activities, discuss and share knowledge, information concern with extension and other community workers, planners and administrators. Further the Rural Information Centre and its network system can help the people in retaining their literacy and information/knowledge oriented skills. The information centres can also be a forum where members of the village can work on community projects and produce their own information materials. It can also serve as a place for cultural and leisure
activities. Rural areas are the backbone of any developing country. Productive, effective and meaningful services of Rural Information Centre, Information Centre, Rural Libraries and Community Information Centres are very much essential in view of the growth and development of rural areas as well as to meet the information needs of the village people. For better development and enhancement of the rural areas the Central and State Government should come forward to help and support in providing financial and technical requirement in time to those agencies, institutions, organizations, NGOs which are actively involve for the development of rural areas.

6.12. Further Study and Future Course of Action

We are now living in a network society in which web base information can be an important information source in rural library service/rural information service/community information service in rural areas. Since the administration and functions of Rural Development in unexplored phenomena, the present study is exploratory in nature. In terms of its objective, scope, and hypothesis, it seeks to provide information needs of rural community and also seeks to provide an initial step towards development of proper Rural Library and Information Network System/Rural Community Information Service Centre/Rural Development Information Network System rather than examining the casual relationship of variables of Rural Development Programme. Hope that the study might help to develop Web Based Integrated Rural Information Network System for further studies. Hopefully greater interest in Community Development and Rural Development Programme can be created and more empirical works will be encouraged.
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