

North East India Rural Information System (NEIRIS): A Model

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Emphasizes that information is a basic resource in all developmental processes and contemporary human conditions. Argues that provision of valuable, appropriate and timely information is the key to success in any attempt at reaching the benefits of modern development to the rural masses. Proposes a model for North East India Rural Information System (NEIRIS) to facilitate effective information flow and access in the villages of the North Eastern states of India.

1 BACKGROUND

Information has become a basic and a valuable resource required by every member of the society. Crickman (1979) pointed out that there are many reasons to value information, but none is more significant than the fact that access to appropriate and timely information can expand the resources available to the society as a whole and to its members individually. Beal (1979), in this regard, argued that the value and need of information may differ from person to person depending on the situation and the need of the users, as the information needs are strappingly influenced and conditioned by the specific circumstances of people and the places in which they live. In this connection, Humphreys (1984) pointed out that human needs have become more complex with our everyday life getting more sophisticated and at the same time, with more leisure time available, the demands for the means to enjoy fuller lives have broadened and deepened. As a consequence, information has a variety of connotations—from highly technical and professional to purely recreational aspects, from academic and research purposes to day-to-day practicalities.

To enhance the value and utility of information, argued Gopinath (1985), it requires understanding of the needs of the information users and provision of information in the appropriate format and level. In this regard, Barua (1985) emphatically stressed that formulation of any national information policy, therefore, must identify the needs of the country to meet the educational, cultural,

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economical, political and recreational information needs and aspirations of the citizens – the end-users of information. Girja Kumar (1990) also argued that it is important to know and understand the users and their diverse needs of information by identifying their background, interest, specialization, etc., in order to enhance the effectiveness of information flow and access as a whole. The world of information producers, systems and services revolves around the users.

In today's increasingly complex, multicultural and information-intensive society, one cannot think and talk of all-round development without proper information flow and its accessibility, as there exists a close relationship between information flow and access and the development processes. Mchombu (1995), in this regard, argued that access to appropriate information is the key factor in the sustained development of any society because it reduces uncertainty and enhances awareness of possible courses of action for better solutions. Barwise and Seligman (1997) have also emphasised that proper information flow and access is a necessity in life— it guides every action, moulds every thought, and sustains the many complex interactions that make up any natural system or social organisation. In this context, Mangla (1998) had appropriately pointed out that information, like any other resource, needs to be well managed through proper support and coordination in growth and usage, to avoid the problem of being wasted and inefficiently utilised and, thereby, bring out desirable impact on the development processes.

The need and value of information in every development process and contemporary human conditions have been widely recognised both by those involved in decision making and development processes as well as the potential recipients of such benefits, reiterated Leach (1999). Indeed, it is the smooth flow of information and its accessibility from any corner of the world that has accelerated the processes of socio-economic progress of the modern societies, which has become a major global feature today. Dasgupta (2000) was right when he attributed this fact to the advancements in information and communication technologies that has transformed the way information is being generated, collected, organized, stored, repackaged, retrieved and disseminated.

The role and importance of information in a modern society need not be overemphasized. More acutely, the need for information relating to all aspects of life is felt by the rural masses. In a developing country such as India, one of the most crucial factors to be given immediate emphasis in bringing about an all round national development successfully is reaching the rural masses with valuable, appropriate and timely information. Some of the outstanding efforts made in this regard, are highly illuminating as discussed below:

The National Workshop on Rural Libraries and Information Centres under Panchayati Raj (1998), organised by the National Institute of Rural Development, Hyderabad was held on September 9-11, 1998. Stressing on the need and importance of the proper information flow and access in the rural areas and having

analysed the crucial role of the rural libraries in effective dissemination of appropriate information to the rural populace – an indispensable factor in all round national development, the workshop had concluded with certain recommendations. Some of the relevant recommendations, in this regard, were as follows:

- (i) The workshop recommended a plan to augment the existing information collection and dissemination mechanisms of the rural libraries, reading rooms or resource centres. In this context, government and non-governmental agencies have been emphatically urged to take initiative towards enacting library legislation in their respective states and the library cess collected under the legislation should be released on time to the local library authorities for the development of libraries.
- (ii) In view of the Gazette Notification of the Action Plan of National Task Force on Information Technology, Government of India, in which an IT revolution by the turn of 2002 has been targeted, it was recommended to start immediately computerised community information centres at an appropriate level of rural administration, preferably at the Mandal level to begin with. In this regard, and in view of the recommendation of the IT Task Force to allocate 3% of the development budget to IT related activities, a general directive may to this effect be issued by the Planning Commission and specific directives issued by the respective Ministries at the Centre and State level to allocate separate budget head for maintenance and the smooth functioning of these information centres, for the benefit of the elected representatives and the rural public.
- (iii) To make the information centres serve the rural public more effectively, it was also recommended that the personnel to man the information centres should be identified locally, who understands the local environment better, and should be trained in handling the new communication facilities by organisations such as NIC and National Institute for Rural Development (NIRD). A working manual should be prepared by NIC or NIRD for the day-to-day functioning of these information centres and be made available in regional languages for its effective use at the Mandal level.

Tikekar (2000), in his study, argued that the development processes could come out with concrete results only when there is smooth information flow accessible to the intended users. In this context, the author emphasized on the crucial role of the rural libraries in facilitating effective dissemination of appropriate information to bring about qualitative change and improvement in the life of the vast majority of India's population living in the rural areas. Therefore, while pointing out on the failure of the existing public library system in reaching the rural populace with appropriate information, he had put up a proposal for a rural information network in which:

- (i) Rural libraries as community information centres must be considered as

distinct entities, deserving special attention, and not simply link to the public library system.

- (ii) A rural community information centre would function catering to the various information needs of the community of a defined jurisdiction.
- (iii) The community information centres would work in coordination with other information agencies in order to provide concerted information services to the rural populace.
- (iv) Emphasis was also given on the active involvement of the government and the non-governmental organisations in establishing and maintaining the rural community information centres.

In another study, Ramaiah and Ramchander (2000) emphasized on the need for setting up Internet Kiosks in Indian villages for bridging the gaps in information flow and access. They reiterated that the digital revolution had made information flow and access easier cutting across geographical, social and cultural barriers. Citing the example of Andhra Pradesh in championing the cause for electronic governance and the use of information technology for interactive governance through Andhra Pradesh State Wide Area Network (APSWAN), the authors made a proposal for setting up Internet Kiosks in every Indian village. They also argued that smooth and adequate information flow and access could be rendered to the rural people through the Internet Kiosks in the villages. This, in turn, would accelerate the process of improving the living conditions of the vast rural populace and in bringing them to the main stream. They sustained their argument with the following points:

- (i) There being more than 5 lakh Indian villages without a library and information centre, it would not be possible for the state or central governments to establish libraries in all the villages for want of huge funds. Moreover, public libraries, they reiterated, are getting obsolete mainly due to shortage of fund and the decline in collection and service standards.
- (ii) The villagers should not be made to remain second-class citizens due to lack of access to appropriate information. In this context, the panchayat institutions at the grassroots level could take the initiative in establishing village-level Internet kiosks, under the provision given in the 73rd Amendment to the Indian Constitution.
- (iii) The use of Internet would help rural dwellers access to appropriate information and thereby make them conscious about the importance of science and technology in the socio-economic progress.

In a similar line, Sarada (2000) emphasized on the need for providing community information services (CIS) by the public libraries up to the grassroots level. In support of this, the author had put up the following arguments that:

- (i) In response to the changing role of information profession, provision of

community information services came into effect as an attempt at providing appropriate information to the poor, deprived, illiterate and the minority groups – a war on poverty.

- (ii) The scope of CIS also includes assisting the individuals and groups with relevant information for solving the problems in their day-to-day life – a democratic right.
- (iii) The emergence of information as a key resource in all fields of human endeavour and advancements in information and communication technologies spanning geographical boundaries and time periods had made it possible and necessary even for rural villagers to have access to appropriate and timely information – right to information.

In support of the above arguments, the author had proposed that every village in India should be provided with personal computers, a good room with functional furniture, power and telephone connections to facilitate the smooth flow of information which would be easily accessible to the rural populace.

The emerging Information and Communication Technologies (ICTs) have a significant role to play in evolving a paradigm to take advantage of knowledge availability to achieve the triple goal of increased income, jobs and food, reiterated Balaji et al (2000). In this connection, they carried out a survey among the poorer households covering 10 percent of the resident families in the proposed area during April to June 1998 to get a clear picture of the existing communication habits and channels in the rural areas of Pondicherry.

The result of the survey indicated that the predominant sources of information were the petty local shopkeepers, the market place and the agri-input suppliers. It was also found that the channels of development information available through the Agricultural Officers and Block Development Officers were not very effective, as information through these channels did not correspond much to the material benefits of the rural people. The reach of electronic media, however, especially television was found very high considering the prevalence of poverty in the villages surveyed.

In this connection, they also made an attempt to assess the effectiveness of the experimental project called 'village knowledge centres,' which had been set up in Kizhur, Embalam and Veerampattinam with Villianur as the operational centre – a programme launched in 1998 to determine the way in which ICTs make an impact on rural livelihood in Pondicherry. The key element of the project was to create content suitable, to the local needs by holding extensive consultations with the participating village communities. They found that the most sought information was on government welfare schemes followed by education, agriculture, fisheries, health and employment among others. It was also found that women in rural families were also interested in obtaining health related information, particularly concerning the disorder in the reproductive tract and child health. In

Veerampattinam, a Christian village, information required included safety of fishermen at sea, fish occurrence, post-harvesting techniques and wave height. Finally, they came up with the conclusion that a rural information network can only be meaningful when there is a considerable local content. Therefore, they have suggested that:

- (i) The volunteers of village information centre should be trained not only in the use of computers and networks, but also in smoothening the information flow and access. For instance, having a basic knowledge of the local language and understanding the socio-economic factors that affect and shape the life of the community were found very essential for providing effective information services to the rural people.
- (ii) Social and gender barriers need to be downsized through proper education and awareness programmes that equal access to appropriate information, irrespective of caste, sex, economic status, etc., can greatly contribute towards the all round development in the life of the rural society.

In the present-day information-intensive society, there is an overwhelming proliferation of information flow and access in the urban areas. However, most of the rural populace, particularly in a developing country such as India, are yet to enjoy the benefits of modern advancements in information communication technologies. The rural masses too have information needs like their counterparts in the urban areas. It is, therefore, this uneven geographical spread in information flow and access that has become a major area of concern today.

Thus, the emphasis here is on information as a key resource in all the development processes and its role in improving quality of human life. It was an attempt to study how proper and smooth information flow and access could be facilitated in the rural areas, particularly in the north-eastern states of India. The present work, therefore, is the outcome of the research undertaken to determine the various dimensions of information flow and access at the village level in the two North Eastern states of Meghalaya and Nagaland.

2 SAMPLES

Personal familiarity and accessibility were considered essential in selecting the research areas. Accordingly, two North Eastern states of Meghalaya and Nagaland were selected. Further, one district from each state, located at a distance of not less than 150 kilometres from the state capital were identified. Following this, two villages from each district were selected with one village located within the radius of 5 kilometres and another located at a distance of not less than 60 kilometres from the district headquarters. The total number of households was also considered in selecting the villages. Only the villages having between 100 to 400 households were considered for the purpose of the present study. Finally, 20 percent of the total households from each selected village were taken as the sample population and the heads of the families or anyone from the family who can

provide necessary information were chosen as the respondents. All together, 155 observations have been made taken from all the four selected villages. Table 1 below represents a descriptive profile of the selected villages in a nutshell.

Table 1: Profile of the Village

Descriptions of the village	Name of the village			
	Nagaland		Meghalaya	
	Japu	Mokokchung	Damash	Rongrenggiri
<i>Distance in kilometres from the village to different centres/places</i>				
State Capital	200	157	220	302
District HQs	60	1	85	4
Block Centre	5	4	16	7
Nearest Town	5	1	12	3
Nearest main marketing centre	5	1	15	3
Nearest main road	16	½	0	0
Total Population	850	1854	1100	2025
Total number of household	104	307	128	236
Total area of the village in sq kms (approx)	5	4	6	4
Literacy percentage	75%	54%	70%	75%
<i>Educational institutions existing in the village</i>				
Primary school	Yes	Yes	Yes	Yes
Middle School	No	Yes	Yes	Yes
Secondary school	No	No	Yes	Yes
Higher Secondary School	No	No	No	No
<i>Communication channels available in the village</i>				
Telephone	No	Yes	No	Yes
Television	Yes	Yes	Yes	Yes
Newspapers	Yes	Yes	Yes	Yes
<i>Link road to the villages</i>				
Metalled	No	Yes	Yes	Yes
No. of NGOs operating in the villages	Nil	1	4	2
Church	Yes	Yes	Yes	Yes
Primary Health Centre	No	Yes	No	Yes
Library	No	No	No	No

Source: Questionnaires

21 DATA COLLECTION

A pilot survey was carried out using structured-interview and observation methods to assess the relevance of the study. Keeping in mind the objectives of the study and on the basis of the information gathered through the pilot survey, the final scheduled-questionnaires were constructed and the data had been collected personally with the help of enumerators and interpreters. This was supplemented by personal observations and discussions with the villagers.

3 SUMMARY OF FINDINGS

The major findings of the study may be outlined as below:

- (i) Villagers in Meghalaya and Nagaland need more information pertaining to all aspects of life.
- (ii) The interpersonal communication sources and channels such as teachers, educated persons, friends and relatives, co-farmers, co-traders, *etc.*, are found to be more effective than those of governmental functionaries such as health workers, agricultural extension workers, *etc.*, primarily because the governmental functionaries are not readily available and accessible to the villagers as and when they are really needed. At the same time, the non-interpersonal communication sources and channels including mass media, church, banks, co-operatives, *etc.*, are found to be ineffective in meeting the information needs of the villagers as they lack accessibility to the villagers and usually fall short of situational relevance.
- (iii) The villagers, irrespective of their socio-economic backgrounds, use interpersonal sources and channels of information to a greater extent than non-interpersonal sources and channels.
- (iv) There are no significant differences found in information flow and access and the extent of use of various information sources and channels across geographical variations of the two states.
- (v) The volume of information flow and access through various sources and channels in the villages for various purposes are found to be very low. There are three main factors contributing to this fact. In the first place, information flow and access in the villages through various interpersonal communication sources and channels are found to be very less. This has been primarily because governmental functionaries including health workers, agricultural extension workers, *etc.*, do not make themselves available and accessible to the villagers when they are really required. At the same time, information flow and access through teachers, educated persons, friends and relatives, *etc.*, could not adequately meet the information needs of the villagers mainly due to their lack of exposure to various developments in information communication technologies and media available as they usually remain confined to the villages and depend on the same means of acquiring

information, which include folk knowledge and personal experiences. Secondly, information flow and access in the villages through various non-interpersonal communication sources and channels are found to be very less and ineffective. This is primarily because non-interpersonal sources and channels are not in constant contact by the villagers and are not readily available when needed. Moreover, non-interpersonal sources and channels of information also lack accessibility. As for instance, most of the television and radio programmes and newspapers do not have the local contents. Thirdly, the villages have very poor communication infrastructure.

4 RECOMMENDATIONS

In view of the above findings, the following recommendations have been made for effective information flow and access in the villages with special reference to North Eastern states of India.

- (i) Every village of North East India should have a Village Information Centre (VIC) through which integrated and concerted information services can be provided to the villagers.
- (ii) There should be an integrated rural information system established specifically for the purpose of providing information tailored to meet the requirements of rural masses of the North Eastern states.

The task of setting up such a system can be taken up by the North Eastern Council (NEC), an Autonomous Body, Government of India, whose main objective being to uplift the North Eastern states, particularly the rural areas, through systematic channelisation of funds and development programmes allocated by the Central Government. Such need can only be ignored at the cost of individual as well as national progress. In this regard, a model for the North East India Rural Information System (NEIRIS) has been proposed (*Fig. 1*).

4.1 ORGANIZATIONAL STRUCTURE AND MANPOWER RESOURCES REQUIRED FOR NEIRIS

The organizational structure and manpower resources required for NEIRIS at various levels are discussed as below:

4.1.1 North Eastern Council: Rural Development Information Division

As shown in the Figure 1, the NEIRIS can be set up under the auspices of the North Eastern Council (NEC) which will be the apex of the hierarchy responsible for planning, coordinating and funding the system. For proper and effective implementation of the proposed NEIRIS, the NEC must set up a separate division headed by a senior administrator not below the rank of a Joint Secretary. A minimum supporting staff strength of at least 10 trained information professionals would be required. An Information Scientist or a Documentation Officer having at least 8 years of experience in the field may assist the head in supervising the team.

NORTH EAST INDIA RURAL INFORMATION SYSTEM (NEIRIS)

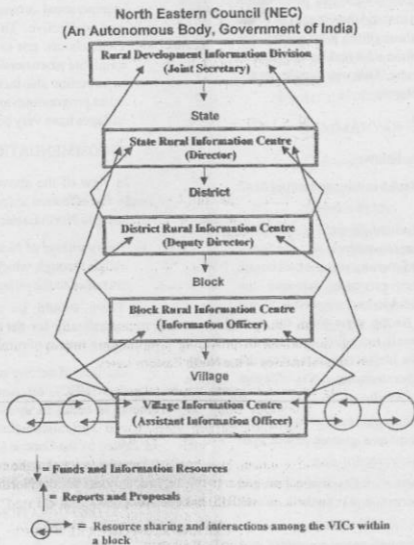


Fig. 1: Model for North East India Rural Information System (NEIRIS)

412 State: State Rural Information Centre (SRIC)

At the state level, the RIC may be headed by a Director having at least 15 years of experience as Information Scientist/Documentation Officer or equivalent in handling information systems and services or 8 years of experience as Deputy Director at the district level. The Director should be supported by Information Scientist, two Information Officers and three Assistant Information Officers. A minimum clerical staff consisting of one Accountant, one Stenographer and one typist with knowledge in computer applications apart from a peon, a chowkidar and a cleaner may also be recruited to facilitate the proper and smooth functioning of the centre.

413. District: District Rural Information Centre (DRIC)

At the district level, a Deputy Director with at least 8 years of experience in handling information products and services as Documentation Officer/ Information Scientist or equivalent in any information-based organization or 8 years of experience as an Information Officer at the block level can handle the work. The Deputy Director should be supported by one Information Officer and two Assistant Information Officers apart from the minimum required clerical staff.

414 Block: Block Rural Information Centre (BRIC)

An Information Officer of the rank of Class I Gazetted Officer having at least 5 years of experience in a similar organization or related field experience as Assistant Information Officer can handle the work at the block level. One Assistant Information Officer and at least 5 graduates from any stream as Field Assistants apart from minimum required clerical staff should be recruited at this level in order to ensure adequate coverage of all the villages under the block.

415 Village: Village Information Centre (VIC)

An Assistant Information Officer of the rank of a Class II Gazetted Officer with a minimum qualification of Master's Degree in Information Studies, Information Management, Documentation Science, or Library and Information Science preferably with knowledge in computer applications may be recruited and posted at each village. Two graduates each as Field Assistants belonging to the respective villages should be recruited to actually implement the fieldwork at the grassroots level. Here, emphasis is on knowledge of the local language for effective information dissemination to the villagers. A qualified typist with knowledge in computer applications, a peon, a chowkidar and a cleaner each belonging to the respective villages should also be recruited to ensure proper and smooth functioning of the VICs.

It is also crucial that the VICs be established on the lines of standard practices as that of any establishment involved with the organization and dissemination of information. A sound organizational, financial, and manpower infrastructure at the village level can ensure optimization of available information resources.

42. FUNCTIONS AND SERVICES OF NEIRIS

The functions and services of NEIRIS are discussed as follows:

421 North Eastern Council (NEC)

As the apex body, the NEC would take up the tasks of selectively collecting, evaluating, organizing, consolidating and archiving all relevant data and information pertaining to developmental issues concerning rural areas that can be

transmitted to the respective states. The NEC will consider various reports and proposals put up by the State Rural Information Centres for necessary actions and further improvements in the system.

422 State

The State Rural Information Centres will be responsible for resource mobilization and programme implementation in the respective states. It will also ensure that proper co-ordination is maintained at all levels of the proposed system within their respective states to ensure that smooth information flow and access is facilitated at the villages. The concerned Centres at the state level will further repackage and transmit all data and relevant information to the concerned districts. The State Rural Information Centres will also report twice a year and put up proposals from time to time to the concerned Division of the NEC after duly considering the feedbacks from the DRICs, BRICs and VICs.

423 District

Each district will identify each information package in terms of suitability, demand and specific allocations made for each block within its jurisdiction.

424 Block

All prepackaged data and information made available at the block level will be reallocated to different villages within its jurisdiction.

425 Village

All the data and information transmitted to the villages will be reorganized, stored, publicized and disseminated through the Village Information Centre (VIC), which will assume direct contact with the end-users – the villagers. This way, the rural masses can be provided with useful, timely, valuable and accurate information to ensure individual as well as national progress. The VICs will constantly interact with the villagers regularly to enable them (villagers) to express their needs, grievances and suggestions. Apart from the normal daily working hours, the VICs must also provide special service hours from time to time taking the convenience of the villagers into consideration. The VICs will also share resources and interact with one another within a block to ensure that comprehensive and concerted information services are provided to the villagers. It is also crucial that VICs resort more to interpersonal communication for publicizing their resources as well as for information dissemination to the villagers. Further, use of audio-visual and various other multimedia systems will be more effective in information dissemination. Thus, the resources of the VICs will comprise mainly of multimedia consisting of micro documents (newspapers, journals, handbooks, pamphlets, etc.), non-book materials and other multimedia tools and devices. In short, VICs will function as Multimedia Kiosks that provide

organized, evaluated and consolidated information resources and services to the rural populace.

The success of an integrated system such as the one proposed depends to a very great extent on the existence of an efficient and affordable telecommunication infrastructure connecting all the villages. In this regard, Wireless Local Loop (WLL) devices can go a long way in facilitating the smooth information flow and access in the villages. Any appreciable success in this regard will contribute immensely towards achieving all round development, especially the much needed rural development.

426 Reporting, proposals and accountability of VICs

In order to ensure speedy disposal of projects and to also maintain transparency in all matters, the VICs will be empowered to report, put up proposals and made accountable directly to the concerned wing of the state overriding the formal procedures of the hierarchy as and when the situation warrants. This will also help to avoid bureaucratic red-tapism in the working of the system and also any breakdown in the system can be identified and corrective measures adopted accordingly. The direct feedback from the VICs to the highest level of the hierarchy within the state will further ensure that valuable, accurate and timely information is consolidated, repackaged and transmitted to the villages. This will also provide the villagers an opportunity to address their needs directly to the policy makers.

43 PAY STRUCTURE

The salary and allowances payable to the personnel recruited by NEIRIS would be governed as per the pay and salary admissible in the case of all central government employees serving within the Union of India.

44 PHASES OF IMPLEMENTATION

In the first phase, VICs can be set up in the villages having a total population of 5000 and above. At this stage, problems involved and achievements made can be measured and evaluated so that necessary modifications for further improvements can be done. Consequently, in the second phase, VICs can be set up in every village of the North Eastern states of India within a span of five years.

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