

**Report of
the Expert Group
on IT Programmes
of
The Ministry of
Panchayati Raj
Government
of India**

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**Regional Training Institute, Kolkata
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PREFACE

Two major reforms are sweeping the landscape of governance in the country: the 73rd and 74th Amendments to the Constitution and e-Governance. The formation of the Ministry of Panchayati Raj has given a fillip to both the reforms, particularly in grass root governance in rural areas. The Ministry's intention to strengthen Panchayati Raj Institutions (PRIs) through the induction of Information and Communication Technologies (ICTs) was first demonstrated in the Seventh Round Table Conference organized by the Ministry at the behest of the Hon'ble Minister for Panchayati Raj, Shri. Mani Shankar Aiyar. This Expert Group was constituted by the Ministry in June 2007 as one of the important efforts in this direction.

The Expert Group was entrusted with the task of assessing the IT Programmes of Ministry of Panchayati Raj and recommending cost effective solutions along with the cost implications. Adopting a consultative approach, the committee had dialogues with the States to assess the existing status of computerization up to the Gram Panchayat level, including the initiatives undertaken by the State Governments. In order to understand the ground realities, the committee conducted field visits to some of the Gram Panchayats in the selected rural areas where some IT initiatives had been undertaken. Inputs from some eminent experts in the public and private sector were also taken into account as part of the consultative process.

Induction of ICT at the grass root level in such a large scale has never been done in the past. An initiative of this nature will provide, for the first time, access to ICT interface at the grass root level. It has tremendous potential for building ICT culture at village level which will determine the direction the country will take in the long term. It is envisaged that ICTs will gradually permeate every aspect of social life in the future and hence would gain strategic importance in the lives of citizens.

The Expert Group, therefore, felt that the choice of technology should be driven by the need to make an attempt to bridge the digital divide and ensure that the society enjoys the freedom to harness the benefits of the technology, not only in using it efficiently and effectively but more importantly, in being part of the technology development process itself. Accordingly, open technology, which includes open standards, open source and other similar open initiatives has been recommended as the basis for technology options. Such a choice would result in low cost, freedom from vendor lock-in and transparent interoperability standards.

Further, the Group has accorded due autonomy to States to define and develop their own State specific functionalities and application software, over and above the core common minimum applications prescribed centrally.

Given the varied levels of functional devolution and availability of other associated infrastructure in various States, it would have been logical to prioritize the implementation, beginning

with States having greater devolution and other supporting infrastructure. However, such an approach will only increase the digital divide. The Expert Group has, instead, recommended that the project should have two or more categories of Panchayats (high, medium, low) based on their overall preparedness and work out different plans for each of the categories. Such an approach will encourage and motivate the States to walk towards greater devolution to the Panchayats.

Finally, the Expert Group felt that application of ICT in capacity building interventions has become inevitable in view of the potential offered by the technologies and the wide user base to be trained. It is, therefore, suggested that the States may choose appropriate training interventions to ensure full use of modern communication technology to reach large numbers. Accordingly the Group recommends, inter alia, multi-mode training interventions and establishment of Integrated Capacity Building Centres.

I deeply appreciate the commitment of all the Expert Group Members for their dedicated efforts throughout the study. I also thank representatives of the State Governments, eminent experts from Public and Private Sector for their valuable inputs. I also appreciate the efforts put in by Shri A.S Sahota, Joint Secretary, Ministry of Panchayati Raj in coordinating the entire study.

I also wish to record Expert Group's deep appreciation of the valuable guidance provided by Shri B.K. Sinha, Additional Secretary, Ministry of Panchayati Raj and dedicated assistance provided by Shri D.C. Misra, Senior Technical Director and Smt. Rama Hariharan, Technical Director, National Informatics Centre.

The Group had the privilege of valuable consultations with Smt. Meenakshi Datta Gosh, former Secretary of Ministry of Panchayati Raj.

The Secretary, Ministry of Panchayati Raj, Smt. Sushma Singh has been instrumental in guiding and supporting the Group in giving a final shape to the Report.

The Group hopes that this report will be found useful by the Ministry of Panchayati Raj and the State Governments in e-Governance endeavours in the future.

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1.0 Background

i. Following creation of Ministry of Panchayati Raj on 27th May 2004, it was seen that its foremost task was to ensure conformity to the provisions enshrined in Part IX and part IX A of the Constitution of India. An immediate challenge arose in that the MoPR needed to evolve a national consensus (with and through State Governments) on a feasible roadmap that would guide and inform the implementation of Panchayati Raj vide 73rd Constitutional Amendment Act, 1992. Accordingly, in its first 150 days between July and December 2004, the Ministry of Panchayati Raj convened a series of Seven Round Table Conferences of State Panchayati Raj Ministers chaired by the Union Minister of Panchayati Raj. Through these deliberations, 18 dimensions of Panchayati Raj were identified, ranging from an appropriate Devolution of the Functions, Finances and Functionaries (apropos the Eleventh Schedule in Part IX of the Constitution), to District Planning, Training, Capacity Building and IT-enabled e-governance. The Ministers of Panchayati Raj concluded the Seven Round Tables by unanimously adopting 150 Action Points, which were subsequently approved by the respective Chief Ministers.

ii. Several governance structures have been set up to monitor the implementation of Panchayati Raj in letter and spirit. An Expert Group of Panchayati Raj Secretaries was constituted in 2005 to monitor the progress and implementation of these 150 Action Points, and has held nine meetings so far. This Expert Group of Secretaries headed by the Secretary, Ministry of Panchayati Raj would also service the Council of Panchayati Raj Ministers which too has already met three times at Kochi, Kerala in August 2005, at Bhubaneswar, Orissa in June 2006 and at Thiruvananthapuram, Kerala in August 2007. The Empowered Sub-Expert Group of National Development Council also periodically reviews the progress of implementation of provisions on Panchayati Raj contained in the Constitution of India, in particular the extent of real devolution of functions, finances, and functionaries, creation of Panchayat sector in the state budget, implementation of operational guidelines on District Planning Expert Groups. The ground reality is that there is no uniformity in State Governments implementing Panchayati Raj in letter and spirit as mandated by the Constitution.

iii. The Seventh Round Table Conference organized by the Ministry of Panchayati Raj in Jaipur in December 2004 recommends positioning IT as a *vital input of capacity* for Panchayats so that they can perform their constitutionally and legislatively mandated functions better. Some of the recommendations of the Round Table on the role of IT in Panchayats include:

The Round Table arrived at a consensus to utilize IT as:

- a) a decision making support system for Panchayats themselves;
- b) a tool for transparency, disclosure of information to citizens social audit;
- c) a means for better and convergent delivery of services to citizens;
- d) a means for improving internal management and efficiency of Panchayats;
- e) a means for Capacity building of representatives and officials of the Panchayats.
- f) an e-Procurement medium

It was also decided that as the functional domain of Panchayats potentially extended to 29 subject listed in the Eleventh Schedule, all e-Governance initiatives at the local level needed to converge with the appropriate PRI as the nodal point. Some of the key recommendations of the Round Table are given below.

- The Round Table recommended that there should be a systematic approach on training of staff and Panchayati Raj members through a cascading mode on use of IT. The opportunities offered by the satellite connectivity provided through the ISRO, including EDUSAT, could be used for undertaking training.
- It was decided to develop common software application packages with provision for appropriate customization by states. In this connection, the National Informatics Centre (NIC), being a government body present in all districts of the country and which has already done considerable software development for Panchayats was recommended as the primary software provider.
- The National Panchayat Portal developed by the NIC for the Ministry of Panchayati Raj to become the information hub that links up Panchayats, the State Government and the Central Government for sharing of information, experiences and best practices. As a first step, all State governments may immediately link and port the content of their existing Panchayati Raj websites or portals to the National Panchayat Portal and all District, Intermediate and Village Panchayats can be enabled and facilitated to link up with the portal. The content can be regularly updated by the respective stakeholders.
- Software development shall be primarily undertaken in Open Source software, with Indian language interface, so as to reduce cost of replication and licensing.
- State governments could approach ISRO for providing satellite based connectivity in all the states to enable connectivity of all Panchayats. The initial infrastructure cost could be considered to be met or supported by an infrastructure fund that could be operated by the Ministry of Panchayat Raj.
- The Round Table also recommended that Community Service Centers being rolled out by the Ministry of Communications & Information Technology at the Centre might be located in the Panchayat offices so that Panchayats services could also be delivered through these Common Services Centers (CSCs).
- It was decided in the Round table that the initiative of empowering Panchayats with IT capacity shall be treated at par with creating national infrastructure such as power, telecom and roads.
- The Round Table recommended to formulate a mission mode/empowered committee mode Project for IT enabled automation of Panchayat institutions with NIC and other solution providers, keeping in view the national e-governance action plan of the Government of India.
- Training and communication ought to reach all PRI functionaries and elected representatives, namely,
(a) Gram Panchayat Members, Chairpersons and Office bearers,

- (b) Intermediate Panchayat Members, Chairperson and Office bearers
- (c) District Panchayat Members, Chairperson and Office bearers
- (d) All officials concerned at National, State, District, Intermediate and village level
- (e) Standing Committee Members at all levels
- Training and communication should not be viewed as a single one-time intervention but should be a continuous, ongoing process leading to enhanced sense of self esteem and confidence. Training should cover both the “before” and “after” election periods. Initial training and communication should reach all elected representatives within one year.
- Content of training should press on strategic and technical aspects and should be based on a systematic Training Needs Analysis arrived at through multi-stakeholders consultative workshops, which would precede the design of training modules and materials.

The complete recommendations of VII Round Table Conference are attached as Annexure VI.

The composition of the Expert Group was as follows:

1	Dr. B.K. Gairola, Director General, National Informatics Centre	Chairman
2.	Shri. SameerKochhar, Chief Editor & CEO, Skoch Consultancy Services Pvt. Ltd.	Member
3.	Prof. Ashok Jhunjhunwala, Indian Institute of Technology, Madras	Member
4.	Shri. H. S. Ashokanand, Director, SIRD, Government of Karnataka,	Member
5.	Prof. M. Aslam, Director, Distance Education, Indira Gandhi National Open University	Member
6.	Shri. A.S. Sahota Joint Secretary, Ministry of Panchayati Raj, Government of India	Member Secretary

Methodology

The Expert Group deliberated over and adopted the following methodology:

- i. It decided to dialogue with the States over the status of the computerization of the Gram Panchayats including the initiatives taken by the State Government.
- ii. It was proposed to circulate a written questionnaire for being filled up by the State Governments.
- iii. The Expert Group also decided to make visits to Gram Panchayats in selected rural areas where computerization has taken place and the facilities installed are being used.
- iv. The Expert Group decided to visit the private establishments set up under different programmes including the Common Services Centres (CSCs) and discussed the matter with private vendors operating at the grass-root levels.
- v. The Expert Group also decided to consult the eminent experts and organizations as could be available in the public and private sector to deliberate on the matters.

Guiding Principles

- i. Panchayats are mandatory institutions under Article 243 of the Constitution. The Panchayats are the

Government at the local level. The endeavour of the Ministry of Panchayati Raj is to ensure a faithful implementation of the constitutional provisions for empowerment of the Panchayats at the grassroots levels. The Panchayats, as opposed to other government institutions are lacking in terms of manpower and administrative support while at the same time are destined to play an increasing role in governance. Hence, proper adoption and utilization of ICT is essential.

ii. The devolution to the Panchayats is not even in respect of all the States. As a measure of strategy, the Ministry of Panchayati Raj proposes to create a strong identity for the Panchayats. Hence, a collective assertion of their rights is very necessary for this empowerment process to take place. IT offers the communication to bridge this gap.

iii. The recommendations of the Seventh Round Table Conference (given above) provide the basis for setting the deliberations of the Committee.

iv. Induction of ICT at the grass root level in such a large scale has never been done in the past. An initiative of this nature will provide, for the first time, access to ICT interface at the grass root level. It has tremendous potential for building ICT culture at village level; what culture is built today will determine the direction, which the country will take ten years hence. In the times to come, ICTs will gradually gain control on every aspect of social life and hence would gain strategic importance in the lives of citizens. Hence, it is imperative to make technological choices which are open in nature and do not lead to control by any single vendor.

v. Several States have utilized these technological changes and have proceeded with their own programmes for computerization of the Panchayats without awaiting a national process to emerge.

Constraints

During the course of its working the Expert Group encountered the following constraints:

i. The field visits were a time consuming affair and considering the wider span and pre-occupation of the Members of the Expert Group, it is felt that more of such visits could have been made in different areas.

ii. The Expert Group applied itself to different approaches to address the terms of references and finally settled for a participatory and wider consultative approach incorporating viewpoints from the States, from the PRIs, from the public and private sector as well as civil society and social organizations. Given the paucity of time the above was a limited exercise.

iii. The requisite information was not always forthcoming even from some of the collateral institutions.

iv. Due to relatively short notice period for meetings and also due to his own preoccupation, Dr. Ashok Jhunjhunwala could not attend any of the meetings. He, however, made some suggestions via e-mail which have been suitably incorporated.

Overcoming the constraints

i. In order to overcome the constraint of time, visits were organized by the Expert Group comprising a competent team of technical personnel.

- ii. The differences were thrashed out through discussion and greater consultation with the States.
- iii. The information available were used for making projection wherever there were missing.

Deliberations of the Expert Group

The Expert Group held meetings from 13th August, 2007 to deliberate on the issues stated in the Terms of Reference. Shri. A.N. Aradya (Broadband), BSNL was requested to participate in one of the meetings as a special invitee to understand the broad strategy being adopted by BSNL to expand the reach of Broadband connectivity in the country.

The Expert Group also visited Karnataka on 26th and 27th August 2007. The Expert Group visited two Gram Panchayats in Kolar District as well as the satellite based training facilities at Mysore and a reception center in Maddur, Mandya District, Karnataka. The main objective of the visit was to understand the working and effectiveness of the satellite based training approach adopted by ANSSIRD, Mysore, Karnataka.

The Expert Group conducted a video conference based consultation with the states of Goa, Kerala, Rajasthan, Orissa, West Bengal, Sikkim and Puducherry on 27th October 2007 to understand the current status of e-Governance in PRIs, Software and solutions that have been deployed, capacity building - learning from and taking note of their feedback. Some members of the Expert Group also had an industry consultation on the 1st of November 2007 with the objective of understanding their approach, technology options and their experiences in similar projects. Realizing the importance of capacity building in the project, the Expert Group has separately dealt with the topic. Given extensive existing knowledge vis-à-vis PRIs in the areas of e-Governance as well as capacity building available with the experts in the Expert Group, this too was brought to bear to provide inputs to this report. This report is the outcome of the Expert Group's deliberations on the stated Terms of Reference.

Organization of the Report

The Report has been organized in following chapters:

Chapter 1 Introduction

Chapter 2 establishes the need for introducing e-Governance in Panchayats.

Chapter 3 assesses the various efforts of Ministry of Panchayati Raj as well efforts undertaken by states to strengthen e-Governance in PRIs.

Chapter 4 explores various technologies that could be used to successfully institutionalize e-Governance in PRIs

Chapter 5 discusses various technology options for capacity building of PRIs using IT.

Chapter 6 summarizes the recommendations of the Expert Group on the stated Terms of Reference.

Chapter 7 details the cost implications and the size of the budget that would be required.

Conclusion

a. The Expert Group is fully aware of the rapidly changing technical scenario and feels that a lot of flexibility is required to be in built in the process so that the major changes may be accommodated, without inducing technological obsolescence.

b. The outcome of this Report in the overall framework marks a substantial progress in development

of our approach towards building up IT support for the Gram Panchayats and will go a long way in placing the Panchayat in the cluster of IT institutions.

c. While it is necessary to fully respect state autonomy, attempts in the past where total conceptualization, design and implementation was done at state level has left much to be desired in terms of implementation time and uniformity in absorption across the country. It is, therefore, necessary that a project of this nature be planned centrally with flexibility for the Panchayats to ultimately have a mechanism to evolve. The suggested approach is, therefore, a hybrid one – with minimal common agenda across the country which will allow time bound implementation of the project while at the same time allowing for a lot of freedom at every level to be creative and innovative to use ICT for their local needs.

Chapter 2 – Need for e-Governance in PRIs

2.0 *“Every village ought to be a republic with the authority and resources to realize the potential for economic and social development of the village”* – this was the vision of Mahatma Gandhi, Father of our Nation for a vibrant democracy in India.

2.1 We have come a long way from the time, in 1989, when Mr. Rajiv Gandhi said that India was the world’s largest democracy, but also the least representative since there were just 5,000 people in parliament and various Vidhan Sabhas that represented the hopes and aspirations of a billion people. This figure of elected representatives today stands at over 30 lakh, of whom a third are women. The touchstone of whether we’ve succeeded in what we’ve set out to do is what Mr. Rajiv Gandhi said while presenting the Lal Bahadur Shastri awards in February 1989: *“... our extension work, our plans, our programmes, often indicate a certain remoteness, a distance between the locations at which they are framed and considered, and the places at which they have to be implemented. To overcome this, we have initiated steps to strengthen Panchayati Raj Institutions (PRIs). We hope that we will thereby put power in the hands of the people, increase their strength; we will be able thereby to shorten the chain of linkages. We are confident that our scientists and our technology will thus be harnessed to the service of our farmers and our poor, for the transformation of our society.”* The UPA Government approved the National e-Governance Plan (NeGP), comprising of 27 Mission Mode Projects (MMPs) and 10 components, on **18 May 2006** with the centrality of citizen services delivery and use of ICT and e-Governance to improve these. One of the MMPs pertains to Panchayati Raj Institutions as one of the key projects under NeGP.

2.2 In 1993, with the adoption of the 73rd amendment to the constitution, India began a process with the potential to create genuine democracy at the village level. Article 243G of Part IX of the Constitution empowered the PRIs to function as “institutions of self-government.” It represented a historic opportunity to transform the face of rural India. The amendment establishes Panchayati Raj: a system of local democracy through local councils known as Panchayats. The amendment mandates

that resources, responsibility and decision-making power be devolved from central government and placed in the hands of rural grassroots people, with elections every five years. The amendment required every state to pass or amend its own Panchayat act by April 1994, and to hold elections by April 1995. It created a three-tier system of local democracy at the village level (Gram Panchayat), the block level (Panchayat Samiti, the lowest level of the government bureaucracy, encompassing 10–20 Panchayats), and the district level (Zilla Panchayat, comprising 4–10 blocks). To ensure that the Panchayats themselves stay accountable to all the people of their constituency, they are required to hold meetings of the village assemblies (Gram Sabhas) several times each year, with a quorum of citizens attending. The most revolutionary aspect of the 73rd Amendment is that one-third of all Panchayat seats are reserved for women. In addition, seats are also reserved for members of scheduled tribes and scheduled castes in proportion to their population. The "11th Schedule" of the amendment specifies 29 areas of responsibility, covering all key aspects of village life, which states may transfer to the Panchayats — along with sufficient resources and decision-making authority. Understanding the importance of the meetings of the Gram Sabha as the foundation of our participative democracy, the Seventh Roundtable of the Panchayati Raj Ministers held in Jaipur in December 2004 recognized ICT enabled e-Governance as *'a decision-making support system for Panchayats themselves, a tool for transparency, disclosure of information to citizens, social audit, a means for better and convergent delivery of services to citizens, a means for improving internal management and efficiency of Panchayats, a means for capacity building of representatives and officials of the Panchayats and as an e-Procurement medium.'*

2.3 The constitutional mandate provided political as well as the policy framework. Once the framework has been laid down, the ground rules become clear. The framework now has to manifest through projects and programs on the ground. It has to manage itself through bottom up planning in lieu of the top down planning the country has been used to so far. Over the past 15 years the history of Panchayati Raj is defined by how much and up-to what extent this constitutional mandate is being observed in different states - *de-facto* and *de-jure* in accordance with the letter and spirit of the constitution. The Ministry of Panchayati Raj was set up in 2004 to provide focused and dedicated attention and to ensure that there is compliance. The recommendations of the Seventh Round Table clearly bring out the importance of e-Governance in facilitating compliance. In furtherance of discussions in Round Tables, a Expert Group was set up in 2005 by MoPR to examine along with the representatives of Ministry of Finance, RBI, CAG etc to what extent can funds and fund flow be monitored through IT enabled technology, which held that it was entirely feasible to transfer funds from state consolidated funds to PRI at any level through banks. And software was developed that ensured that the Gram Panchayat, Block Panchayat, and Zila Panchayat have individual dedicated accounts to which the fund flow, the fiscal devolution could take place. Thus, such electronic tagging

and tracking of fund-flows is an important reason for introduction of ICT at the various levels of the fund-flow chain.

2.4 In October 2004, while addressing a conference, Hon'ble Union Minister for Panchayati Raj, Shri. Mani Shankar Aiyar had stated, *"Since the poor of India are the ones who feel hunger most, need accommodation most, need to be looked after most, it is they who are best relied upon to articulate what are the public goods that should be made available through the Panchayati Raj System."* Local Governments, consisting of Panchayati Raj Institutions and urban local bodies such as municipalities and municipal corporations, being closest to citizens are best positioned to understand the local needs and address them effectively. Recognizing this and in view of the larger fund flow to Panchayats, Planning Commission has issued guidelines vide Circular No. **No. M-13011/1/2006-SP-Coord.** dated 25th August, 2006 mandating decentralized planning from 11th Five Year Plan onwards.

2.5 Decentralized Planning: Planning is a complex, iterative exercise consisting of profiling the area for available resources (both physical as well as fiscal), identifying and prioritizing the needs of the people and matching the expected financial resources to the needs. This requires that Panchayats (and urban local bodies) have access to and maintain databases on the profile of their area such as demography (human resource), amenities and assets, natural resources etc. A good decision support system that is linked to the resource database would help the local planners in preparing quality and timely plans. ICT and e-Governance would be an invaluable tool to be able to effectively do this.

2.6 Effective Monitoring of major CSSs – With an increased focus on rural India and an emphasis on inclusive growth, there is a heightened spending on Centrally Sponsored Schemes (CSSs) that are oriented towards rural areas. This is better demonstrated by Table 1.0, which displays the annual outlay for the year 2007-08 for top 15 CSSs out of a total of 99 CSS. **The total outlay for 99 schemes is Rs. 81,619.87 crores. As may be seen, of this, the total outlay to top 11 schemes alone is Rs.65,637 crores (constituting about 80.42% of the total outlay) while the outlay to top 15 schemes is Rs. 71,366.54 crores (which constitutes about 87.44% of the total outlay).** In many of these schemes, Panchayats have been given a central role in implementation; MoPR is working closely with Central Line Ministries to bring centrality of Panchayats in other schemes as well.

Table-1 The Outlay of Centrally Sponsored Scheme

S.No.	Centrally Sponsored Scheme (CSS)	Outlay	Cumulative Outlay	%of total outlay	Cum. percentage
1.	National Rural Employment Guarantee Scheme	12000.00	12000.00	14.70	14.70
2.	National Rural Health Mission (NRHM)	10580.00	22580.00	12.96	27.66
3.	Sarva Shiksha Abhiyan (including KGBV/TE)	8800.00	31380.00	10.78	38.45
4.	National Programme of Nutritional Support to Primary Education	7324.00	38704.00	8.97	47.42

5.	Accelerated Rural Water Supply Programme (ARWSP)	6500.00	45204.00	7.96	55.38
6.	PMGSY	6500.00	51704.00	7.96	63.35
7.	Integrated Child Development Services (ICDS) including Training and Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (KSY and NPAG)	5293.00	56997.00	6.48	69.83
8.	Rural Housing/ IAY	4040.00	61037.00	4.95	74.78
9.	SGRY	2800.00	63837.00	3.43	78.21
11.	SGSY	1800.00	65637.00	2.21	80.42
12.	Scheme for Universal access and Quality at the Secondary Stage (SUCCESS)	1305.00	66942.00	1.60	82.02
13.	National Horticulture Mission	1150.00	68092.00	1.41	83.43
14.	Integrated Watershed Management Programme (DPAP, DDP & IWDP)	1114.54	69206.54	1.37	84.79
15.	Macro Management of Agriculture (MMA) Scheme	1100.00	70306.54	1.35	86.14
16.	Central Rural Sanitation Programme	1060.00	71366.54	1.30	87.44

It is clear from Table-1 above that though a large amount of money is being channelized. However, outcomes are not very encouraging mainly because effective planning and monitoring systems are not in place. This leads to a considerable delay in applying correctives. Even where such data is available, the veracity of the same is suspect. Any investment made to achieve gains in efficiency in the implementation of these schemes and their associated developmental impact would more than offset the expenditure incurred on the e-Governance effort. Thus, it makes good governance sense to build the capacity of the PRIs, both in terms of knowledge as well as ICT resources, so that they are better positioned to perform the assigned responsibilities. During the video consultation held with select Panchayati Raj Secretaries on the 27th October 2007, Monitoring of Projects came across as the highest priority item for e-Governance. Efficacy of such a monitoring using ICT has also been apparent in programs like Pradhan Mantri Gram Sadak Yojana as well as NREGA.

2.7 Transparency and Accountability – If the Panchayati Raj system has to become real, which is defined in the section 243G of the constitution, developing institutions of the Self-Government at the village level, that means the villagers should be governing themselves and if the villagers have to govern themselves they must know, what their representatives are doing not only down at the village level but right up to the central level. Any system of e-governance whether it is at central level or at the Panchayats level must be tailored to be a part of the whole Right to Information (RTI) process. Panchayati Raj Institutions offer considerable scope for strengthening participatory democracy at grassroots level through social audit. Social audit implies audit of the account, scrutiny of the

accounts books with involvement of the people, and clarification whether the work/beneficiary is actually physically there or not and what people have to say. This therefore can not work unless accounts are actually being maintained and are accessible to the citizen and on behalf of the citizen. ICT enablement of the accounting processes can result in more active citizen participation in various developmental activities such as planning, monitoring of schemes and interaction with elected representatives to ensure that their interests are being effectively served. Right to Information Act (RTI) implemented on the 13th October 2005 further strengthens the role of citizens and civil society organizations as participatory auditors of PRIs. At the same time, there is also a need to strengthen the PRIs in effectively responding to the demands of the rural citizens. ICTs can greatly facilitate the PRIs in becoming proactively transparent, make suo-moto disclosures as well as in quickly responding to any information requests from the citizens.

2.8 Social relevance of e-Governance – Introduction of e-Governance in Panchayats, apart from addressing the requirements of monitoring the implementation of various schemes and providing transparency, has a very important social role. Introduction of ICT at Panchayat level will not only allow experimentation with the technology but will also give immense opportunity to the people to handle technology, be it relating to software, hardware, networking, power supply or any other issue due to which such technology has been traditionally denied to them. Such an initiative will create large-scale job opportunities at the grassroots level, as it has done in urban areas, in the form of operational services, maintenance and many other ancillary areas. The initiative would permeate a culture of ICT usage in rural areas to such a magnitude which probably no other initiative would match. The initiative will also throw up totally new challenges to ICT technology developers as they gear up to meet the requirements of technology diffusion in the villages. Finally, it is likely to create an improved cyber space covering the entire government spectrum of the country, where information could flow seamlessly. It is only after successful implementation of this that our dream of unified citizen centric- services can be achieved.

2.9 Based on the above, the following imperatives make a case for introducing e-Governance in Panchayati Raj Institutions:

- a. They can handle the financial accounting as well as financial reporting guidelines vis- à-vis Panchayat Funds and all schemes and functions being implemented through Panchayati Raj Institutions. These could include all governmental and non- governmental fund flows; schemes and fund usage (including contracts awarded and money paid) etc.
- b. Enhance their ability to generate, manage and collect local revenue.
- c. They are able to automate their own functioning, e.g., records of the minutes of meetings of the Gram Sabha etc. – the information made available could reflect Governance structure and decisions taken; profiles of elected representatives and the role played by them; details of NGOs present in the village.

- d. To provide external visibility for all the above mentioned areas for enhanced public participation such that there is transparency and ability to facilitate social audits strengthening the Panchayati Raj based delivery systems.
- e. They are able to better participate in the District Planning process and bring in an element of felt needs to the plans. The planning efficacy would depend on a comprehensive resource profiling – amongst other things this should include the resident register of every person in the Gram Panchayat including photographs and personal details like place of stay, educational qualifications, health status; complete map of the villages/habitations, showing each house (possible geo-location), field, roads, schools, Panchayat office, markets, hospitals, places of worship; and, Map and topological data showing water flow, feed of weather parameters (including rainfall) year by year, ground water levels; details of local produce - crops, vegetables, handicrafts, industrial output; electricity consumed and available infrastructure like roads, electricity, telecom and major waterworks etc. The planning tools could include modules for financial planning, water management and soil and land management tools etc.
- f. They can offer the citizen services that have been devolved to them with a provision of adding more services as they get devolved.
- g. Provide external linkages for speedy and transparent transfer of funds; markets; communication with state and central government departments etc.
- h. As a mechanism for capacity building.

2.10 There is no doubt that Information and Communication Technologies (ICTs) can play a powerful, facilitating role in bringing about efficiency and transparency in the working of the Panchayats by helping in the maintenance of the above databases and in complementing the existing human resource through internal automation. That Panchayats can absorb the technology intervention has been successfully demonstrated by about 20,000 Panchayats across the countries, which are using ICTs to successfully address their day-to-day functioning. The task is nevertheless daunting as:

- the number of Panchayats are large and their functioning is closely interlinked across tiers,
- the degree of functional devolution varies across states, and
- the availability of enabling infrastructure such as trained manpower, electricity and telecom is not sanguine and varies even within a state.

2.11 In such a scenario, there is a need to phase the introduction of e-Governance in PRIs. However, given the varied levels of functional devolution and availability of other associated infrastructure, it is natural to prioritize the implementation to start from those states having greater devolution and other supporting infrastructure. While such an approach will increase the digital divide, it will also encourage and motivate the states to walk towards greater devolution to the Panchayats. An effort of this kind will help in gearing up the state governments better. The project should, therefore, have two

or more categories of Panchayats (high, medium, low) based on their overall preparedness and work out different plan for each of the category. The Panchayats with high preparedness should be encouraged to take up the integration of the three tiers of Panchayats. Similarly, Panchayats with low preparedness could be put on the local standalone automation of Panchayats. Other criteria could be to allow more functions to be taken up by the Panchayats that are better prepared.

Chapter 3 – e-Governance Efforts

3.0 This chapter focuses on the various efforts undertaken by the Ministry of Panchayati Raj and the States to introduce e-Governance in PRIs. It first highlights the recommendations of the Seventh Round Table Conference organized by the Ministry, followed by independent efforts of the States. This is further followed by funding provided by the Ministry to different States from time to time and also software development efforts undertaken by the Ministry to provide common and generic solutions to PRIs.

3.1 Taking into account the recommendations of the Seventh Round Table, the Ministry has conceived the e-PRI Mission Mode Project, under the National e-Governance Plan (NeGP). Draft Guidelines and EFC Note have been prepared and submitted to the Planning Commission for comments and approval.

3.2 **Funding support from MoPR to States** – MoPR has been funding many States in their e-Governance efforts, though the amount of funding has not been substantial. Further, such funding efforts have not been very organized and no monitoring mechanism has been put in place to ensure that the funds are utilized for their intended purposes with tangible results. Table 2 shows the list of States that have been funded by MoPR since its inception:

S.No.	State	Amount Released (in lakhs of Rs.)
1.	Goa	100
2.	Orissa	100
3.	Sikkim	304
4.	Kerala	252.79
5.	Rajasthan	200
6.	West Bengal	260
7.	Puducherry	87

3.3 As part of the consultations with the States by the Expert Group on IT Programmes of the Ministry, a Video Conference with States was organized on 27.10.2007. The proceedings of the VC are given in Annexure III.

3.4 Based on the consultation the key application areas in terms of priority were as follows:

- Planning.
- Financial Accounting
- Progress Monitoring

- iii. Birth and Death Certificates (Service Delivery)
- iv. House tax (Service Delivery)

3.5 Based on experiences of the expert group members, the following feedback was additionally available:

- a. While Ministry of Panchayati Raj has been giving financial support for procurement of hardware to the State Governments, it results in hardware being procured without provisioning for software, connectivity and training etc. it was felt that such support should be holistic in nature such that the ICT infrastructure can be utilized and benefits realized early on.
- b. The above contrasts with more successful State initiatives like Gujarat, Orissa and Kerala etc. who have taken a holistic approach to e-Governance. The utilization levels are from moderate to reasonably high.
- c. In fact Gujarat has emerged as the first State to have computerized all its Gram Panchayats along with the necessary software, local language support and training. For connectivity the State has opted for Airtel who are providing broadband connectivity including audio and video upto the Gram Panchayat Level. The connectivity is expected to be completed by early next year. They have also come out with concept of Village Computer Entrepreneur that is generating local employment in addition to contributing revenues to the Panchayat.
- d. Few initiatives that have been taken by the Gram Panchayats themselves are having good success due to a complete sense of ownership.
- e. Poor electricity supply and also faulty wiring and earthing seem to be common problems.

3.6 Generic, Common Core Software Solutions from MoPR – Besides providing funding support, the Ministry has also been working closely with NIC to build generic software solutions that could be used by PRIs across States. The major efforts in this direction are as follows:

- a. **National Panchayat Portal (NPP)** – The **National Panchayat Portal is a one-stop portal** and content management framework that hosts independent websites of the Ministry of Panchayati Raj, State Panchayati Raj Departments and PRIs at all levels. NPP generates dynamic websites and provides a simple content management framework for PRIs to manage and publish their content. The sites are local language-enabled and each site can easily exchange content with all the other PRI sites. A more detailed discussion on NPP is given in **Annexe – VI**.
- b. **National Panchayat Directory** – Maintaining an up-to-date list of Panchayats in the country and assigning a unique code to each PRI is a fundamental requirement to be met if all software applications developed for use by PRIs are to seamlessly interoperate with one another. Recognizing the importance, the Ministry has launched the National Panchayat Directory (<http://Panchayat.gov.in/directory>) with a decentralized maintenance of the directory by District Panchayati Raj Officers.
- c. **PlanPlus** – As a step towards strengthening PRIs, MoPR, as part of the Backward Regions

Grant Fund (BRGF) scheme, has initiated efforts to aid decentralized planning at the grass root level. The ministry requested NIC to develop a software application that would enable the preparation of plans by each PRI and would also facilitate integration of these plans into a District Plan for the District Planning Committee. Accordingly, NIC has developed the software, PlanPlus, through an iterative process of discussion and field- testing in States. The software captures the entire workflow relating to Plan formulation involving rural and urban local governments as well as line departments at district level and consolidation of Plan by the District Planning Committee. The software has been tested in selected pilot areas. There is a need to systematically roll out the software in Panchayats as part of the proposed initiative.

d. **PRIASoft:-** PRIASoft (Panchayati Raj Institutions Accounting Software) developed b NIC facilitates double-entry book-keeping of accounts of Panchayats. It captures the voucher level receipt and expenditure details. The software has been customized to meet state-specific requirements and is under implementation in a few states under different brand name.

3.7 Conclusion: From the response to states, the Committee observed that many states have taken lead in e-Governance (provision of ICT equipments, software solutions, training etc), at PRI level, with or without financial assistance from MoPR. The number of such PRIs amount to approximately 35,000. Majority of such states are using common application software, prescribed by MoPR/NIC, which have been further customized and co-branded by state PR through state NIC and rolled out. The remaining states have built their own solutions. As explained in Chapter 1, a systematic approach to provide a common standard based minimum application software needs to be put in place to ensure interoperability of common data and speedier implementation of the project, rather than having to re-invent the wheel for each state. This, however, needs a consultative approach with the state governments to ensure that they are part of the common software development. Though some states such as Rajasthan and Kerala have gone ahead with their own initiatives, they can also be approached to participate in such a consortium based development of application software. This aspect becomes much more relevant when we look at the new e-Governance regime where there is a need to connect and share information with other information providers and seekers eventually.

Chapter 4 – Technologies for e-Governance in PRIs

4.0 Having established the need to introduce e-Governance in PRIs, there was a need to explore available technology options for rural areas and recommend appropriate cost effective technologies for PRIs. As a first step towards this, this chapter first attempts to identify the factors that would determine the size of the computing facility that would be required. Next, it examines the technology options given the challenges of the Indian rural landscape. It concludes with recommendations on the available technologies and gives directions for realizing the vision. In the final meeting of the Expert Group, the comments of Shri. Ashok Jhunjhunwala (who was unable to attend the meetings) which

were received via e-mails, were discussed in detail and the suggestions were incorporated to the extent possible.

4.1 Factors driving computing requirements of PRIs – An analysis of the Panchayati Raj System in India throw up the following as the factors driving the computing facility requirements of any PRI:

- a. **Load of governance on the PRI** – The extent of devolution and the activities mapped to each tier of PRI would determine the load of governance in each PRI. This varies from State to State. More the number of activities assigned to a PRI tier, more would be the data that the PRI would need to maintain.
- b. **Capacity for absorption of Technology**
- c. **Size of the population served by the PRI** – Bigger population implies more data to be maintained on services provided to the local populace.
- d. **Size of the area covered by the PRI** – More area implies more data on assets.

4.2 Though the first factor is uniform across a State, the remaining two factors vary even within a State. All of the above three factors would together determine the computing facility requirements of each PRI.

4.3 Hardware in PRIs – In order to understand the hardware requirements in a Gram Panchayat, Karnataka was taken as a model state as the extent of devolution is fairly good and the size of the Gram Panchayat in terms of population is fairly big as compared to the national average (see Fig. 4.1). After looking at the computerization efforts in GPs in Karnataka, the Expert Group felt that a minimum of one PC would be sufficient to cater to the computerization requirements of GPs with population less than 10,000. Accordingly, the Expert Group recommends that the following minimum computing environment should be provided at GP level:

- i. One PC (with web camera & Pen Drive) with LCD screen
- ii. One multi-function printer (laser printer + scanner + fax)
- iii. One UPS and LAN equipments Any additional requirement of PCs may be decided by States keeping in mind the over all recommendation and financial ceiling stated in the report. As for Intermediary Panchayats (IPs), the Expert Group recommends the following minimum hardware:
 - i. Three PCs (with web camera) with LCD screen
 - ii. One multi-function printer
 - iii. Two UPS
 - iv. One eight port switch to establish LAN within the IP The cost breakup and system elements are as per table

Table - 3

Computing Facility	Cost (in Rs.) GP*	Cost (in Rs.) BP**
Desktop computer	25000	75000
Printer cum Scanner	8000	8000

UPS (1000 KVA)	15000	30000
Webcam	2000	6000
Pen Drive	1000	3000
Miscellaneous Software support	5000	15000
LAN Accessory	-	6000
Total	56000	143000

4.4 Since ZPs have fairly good hardware infrastructure, the Expert Group feels that MoPR need not invest in the provision of hardware to ZPs.

4.5 In order to speed-up the process of procurement and to achieve economies of scale, the Expert Group recommends that MoPR may centrally empanel vendors while procurement could be done at the State level.

4.6 Data Centres at Centre, State and District Level – As e-Governance gains momentum in PRIs, large volumes of data on PRI functioning, assets and citizen related data would be generated. Such data need to be maintained and secured in a central repository where sufficient infrastructure and manpower is available. Even if PRIs are operating in a stand-alone mode to begin with, it would be absolutely necessary that such data is regularly uploaded by PRIs to the central repository. Later, in the near future when connectivity becomes available, such uploading could be automated. This clearly suggests a need to establish data centers to cater to the security and maintenance needs of these data. In order to meet this requirement, the Expert Group recommends that the existing data centers established by Government of India may be utilized to co-locate servers exclusively for use by PRIs. The data centers at the Central level may be subsequently augmented or replaced by State level and district level data centers (in that order) as the data volume grows.

4.7 Connectivity – Connectivity at Panchayat level is very crucial not only for managing the PRI computerization but also for allowing the Panchayat population a window to the world. Preparing the common man for Internet revolution is an important component of induction of ICT in Panchayats. This is the only means through which the village community is going to interact with the world and learn how to harness the power of the Internet for its benefits. PRIs may work online with the data maintained in the data centers or offline (with periodic synchronization with databases at the data center), depending on the strength of connectivity available to them. In either case, they would need some form of connectivity to the data center and the Internet.

4.7.1 As far as provision of connectivity is concerned, it may be noted that NICNET is available up to district level. Currently, many States are going for SWAN (State Wide Area Network) which is/will be available at block headquarters as a single Point of Presence (POP). Thus, the Expert Group feels that these networks could be used to provide connectivity to district and Intermediate or Block Panchayats.

4.7.2 However, currently there is no dedicated network that is extended up to Gram Panchayat

level. Both NICNET & SWAN are contemplating last mile connectivity through broadband, dial-up and VSAT. The Expert Group had consultation with officials of Department of Telecommunication (DoT), Government of India on the provision of broadband connectivity to rural areas. The Expert Group was informed by DoT that BSNL has plans to establish 1,50,000 rural exchanges for the provision of wired broadband connections by June, 2008. BSNL also proposes to provide wireless broadband connectivity to all block headquarters by end of 2008. This compels the need to look out for an alternate solution for the remaining uncovered GPs, which could come through satellite technologies. The Expert Group, therefore, recommends that for Gram Panchayats, the following connectivity options, in that order, may be explored:

- i. Broadband connection with minimum 256 KBPS (wired or wireless)
- ii. Dial-up; and,
- iii. VSAT.

4.7.3 The Expert Group also recommends that the Internet Service providers (ISPs), who will provide this connectivity, should establish a dedicated link with the data center(s) where PRIs data is stored, to enable faster and cost-effective access.

4.8 Open Standards - Induction of ICT at the grass root level is very large and has never been done in the past. An initiative of this nature will provide, for the first time, access to ICT interface at the grass root level. This initiative will have similar impact as was achieved by introducing computers at the district level in 80s. It has tremendous potential for building ICT culture at village level. What culture is built today will determine the direction; the country will take ten years hence. In the times to come, ICTs will gradually influence every aspect of social life and hence would gain strategic importance in the lives of citizens. Building up a culture of technologies which can be controlled by outside agencies and which are produced in a controlled environment can have untold implications in future. Realizing such a strategic nature of this core technology, most of the countries in the developed world are seriously looking at alternative solutions, especially in government domain. As one of the methods of controlling such issues, developed countries are defining "standards" which ensure interoperability for exchange of information. At the same time such standards are evolved in the manner that a single company can not dictate their terms to the user countries. In fact such standards are expected to be evolved on a continuous basis through a consortium mode in which stakeholders take active part. There is an increasing seriousness in the developed world to ensure that society is not getting locked-in with the proprietary products of which society at large, through government, does not have control. The committee examined these issues and felt that strategy of adoption of ICT should ensure that the systems which are built are interoperable, avoid vendor locking and consequently follow open standards as laid down from time to time.

4.9 Software – Software can be broadly classified into the following two categories:

4.9.1 System Software – System software is a software which is responsible for managing the

resources of a computer system. It provides an interface for execution of the application on the computer system. The system software which in our case will consist of operating system, data base management system and application software tools including office tools will form the strategic core without which the applications cannot operate. The system software costs, in general, a substantial amount of financial resources as compared to the total cost of the project. While the cost implication is an important consideration, there are many other considerations of strategic nature in the selection of system software. In a project of this nature where technology is being inducted at the lowest grass root level, with the widest user base, the strategic importance of system software increases. In view of this and large scale economic and social implications it will have, the Seventh Round Table Conference at Jaipur also concluded and recommended the use of Open Source Technology and Open Standards for system software which the Expert Group endorses in totality. However, keeping in mind the existing PC's in Panchayats in some states, the Group decided that in the case of Operating System, while Open Source Operating System is the preferred platform for computer operations, the States may choose any other Operating System (OS), if required, using their own financial resources without affecting the core and common requirements.

4.8.2 Application Software – The application software is a software which captures the requirements of multiple users and provides the user interface which manages the process and management functions. The application software is intrinsically dependent upon the system software and therefore the selection of system software for application development has to be carefully evolved keeping in mind both the vastness and strategic nature of the project and the large social implications it will have.

4.8.3 Recognizing the importance of system software as a strategic product which has large implications on the country as a whole in terms of its support and sustainability and freedom to use it, the Expert Group arrived at the conclusion that the system software should follow open standards.

4.8.4 The Expert Group is of the opinion that the PRIs being the third tier of the Government have to have complete control of their own data and functionality at all times. However, in view of the poor connectivity scenario, particularly at the level of the Gram Panchayats, it would be necessary to deploy locally resident software and application at the Gram Panchayat. For the purposes of mitigating risks in terms of backup, consolidating data at the BP, ZP, State and Central levels and to provide external linkages and visibility; such software should additionally be web enabled and could be co-located at the State/Central data centers. The Expert Group recommends that while building any software solution for PRIs, care must be taken to build both online as well as offline solutions; the online and offline solutions should seamlessly integrate and synchronize with one another. Another requirement would be that as far as possible, the online and offline versions of the software should have same or similar user interface to enable users to switch from one to the other without much effort.

4.9 Domain-specific Data and Metadata Standards – As the process of e-Governance gains

momentum in PRIs, there would clearly be a need to exchange information and data, among PRIs and with other government institutions, both within as well as across states. If this information exchange has to take place effectively, without any ambiguity, then some level of standardization needs to be achieved. Since Panchayati Raj system is still in a very nascent stage in many states in the country, this step, if taken, at this stage can ensure interoperability among applications from the beginning itself. Ministry of Panchayati Raj, being the nodal Ministry, is rightly positioned to take up this mandate and coordinate with the states to define various data and metadata standards and ensure their adoption and adherence. The Expert Group, therefore, recommends that Ministry of Panchayati Raj should set up an Expert Group which is entrusted with this task. The Expert Group could be formed with members drawn from various states. MoPR could take help from DIT or NIC in technically guiding the Ministry on the issue.

4.10.1 Application Software Need Assessment – While the Expert Group appreciates the efforts made by different states in computerizing isolated activities of PRIs, it was observed that such efforts were not suitably backed by a systematic assessment of software needs. This has resulted in bottom-up software development, leading to unutilized software or software silos. The Expert Group felt that each state should prepare a comprehensive need assessment document, in consultation with each tier of PRI. The document should broadly address the following issues:

- i. Identify areas of computerization at each tier based on activities assigned (level of governance) to each tier of Panchayat (Activity Mapping).
- ii. Prioritize areas as per the needs of internal and external stakeholders.

The need assessment document should drive the e-Governance efforts in PRIs. This will make the process of induction of ICT more systematic and help in effective monitoring and implementation of the programme. This evaluation of need assessment should be consolidated by the MoPR through a technical committee to ensure evolution of a vision for application software. The Expert Group also observed that in order to draw up a meaningful need assessment document, it calls for a clear assignment of roles and responsibilities among each tier of PRI (what is called activity mapping in the domain of Panchayati Raj) The Expert Group, therefore, recommends, that each state should complete their activity mapping exercise.

4.10.2 Development of Application Software – A project of this nature has a number of stakeholders starting from the Central Government to Gram Panchayats. Each of them expects a certain amount of information and services from the application software being conceptualized for each tier of the PRIs. The total application software requirements can be divided into two parts – **first the core requirements** which will be needed to implement and manage certain core common functions such as planning, fund allocation, accounting and project monitoring and reporting and other requirements such as sharing all necessary information in the public domain through the websites of PRIs. There will be many more such applications which MoPR may identify from time to time. These

relate more to the development of the citizens in the PRIs and hence their effective implementation is extremely important for the overall development of the country. Such functions and consequently applications will be common across the country and will have to be centrally built and standardized to ensure their speedier implementation and also to ensure that higher level aggregation is performed seamlessly. The **second requirement** of application software would be driven by various services which can be derived out of the services for the citizens in the gram Panchayats and other levels in view of state specific needs borne out of state autonomy. The processes for such service delivery will vary on the model adopted by the State Governments. They will also depend upon the extent of devolution to the PRIs. Consequently there will be a variation in the application software at the State level and may be built by the states.

The Committee, therefore, recommends that certain **core applications** have to be built centrally and implemented uniformly across the country so as to ensure compilation of the data with other institutions like CAG, CGA and other line departments. This will also ensure that the project takes off the ground quickly once the hardware is made available to the Panchayats and also ensure uniform implementation across the country. Some of the core applications that can be identified include planning, fund transfer and allocation, financial accounting, plan progress monitoring, resource profiling, procurement etc. In addition, the websites of PRIs should be a mandatory requirement. Other such applications may be identified by MoPR from time to time as and when need arises. A sizeable component of the core applications have already been developed by NIC. These can further be tuned/modified based on the systematic study proposed in the project to evolve a common core standard in the future. Since a lot of effort has already gone in, the development of such common core applications will not take too much time and hence can be implemented in a short period of time after the availability of hardware. These core applications will also define the common minimum set of data which each PRI should provide as part of tangible deliverables of the project. A number of States have developed state-specific applications which can be examined with a view to incorporate functions found necessary in the new version of the core package.

For the development of the second category of applications, which is driven by service needs, **reference applications** can be built centrally to help in evolving standards and also as one of the solutions to the state government, if they so desire. In case states wish to develop their own software along with the basic model, they should be free to build such a software for themselves. Both categories of applications, however, should be developed in a platform independent manner so that they are replicable and reusable.

4.11 Adoption of National Panchayat Portal (NPP) – One of the first steps towards bringing about transparency in the functioning of PRIs is the provision of information and services by PRIs in the public domain. Ministry of Panchayati Raj has already taken an initial step towards this by launching the National Panchayat Portal. National Panchayat Portal provides a website for each Panchayat in the

country and can be managed by the Panchayats on their own without requiring any technical support in its maintenance. It obviates the need to develop independent web sites for each PRI and its simplicity makes it very easy to manage and exchange content by PRIs themselves, without requiring any technical support. The Expert Group recommends that MoPR should encourage states to take advantage of this facility created by MoPR and commence its utilization at the earliest.

4.13 Development of Indian Language UNICODE fonts – The Panchayat functionaries and elected representatives as well as the rural citizens whom the PRIs serve, work and use local language in all their official dealings. This necessitates the need for use of standard UNICODE fonts so that all content can be accessed and used by all stakeholders from all machines. If every stakeholder has to access and exchange information correctly, UNICODE Indian Language fonts should be available. Currently, Indian Language UNICODE fonts are available for only a subset of Indian languages. Recognizing its importance, the Expert Group recommends that MoPR may expedite the development of Indian Language UNICODE fonts for all Indian languages. MoPR may seek technical support from NIC or DIT in this regard.

4.14 Facility Management – In order to ensure effective implementation of the proposed IT programmes, it is necessary to address issues relating to management of the entire facility in PRIs. Facility management includes management of computing & communication infrastructure, software, capacity building (IT and non-IT issues pertaining to the domain expertise etc), content Management (regular updating of data) etc. so that the intended objective of efficiency, transparency and effective service delivery is achieved. Several options are available:

- i. Service Providers (ASP)
- ii. Joint Ventures (JVs)
- iii. Build-Own-Operate (BOO)
- iv. Build-Own-Operate-Transfer (BOOT) or
- v. PRI handling the operations on its own.

The State PR Department may decide on one or more options, depending on local requirements.

4.14.1 Manpower – In case, the PRIs decide to manage the operations on their own, they would need manpower exclusively to provide them with handholding support for a period of at least one year, so that the e-Governance efforts are internalized by the staff of PRIs. The Expert Group, therefore, recommends that a minimum of one, two and three manpower may be provided at GP, IP and ZP level respectively to ensure that the computing environment in the PRI premises are maintained properly and data is regularly updated to the servers placed in the data center. Such manpower should be provisioned for by the MoPR for a period of one year and subsequently the PRIs/ States need to use their own resources if further extension is required. The manpower could be provided by the hardware vendor; the hardware vendor would also provide sufficient training to the manpower on hardware maintenance. The manpower should be trained on all application software that are used by the PRI;

the manpower would also act as a trainer for PRI functionaries on the usage of the software. After the handholding period of one year is over, PRIs may retain such manpower from their own funds or handle the operations on their own.

4.15 Monitoring – In ultimate analysis, the success or failure of any e-Governance effort would be judged on how well the information and services are provided to all the internal and external stakeholders. Effective content management is, therefore, recognized by the Expert Group as the single most important element for judging the effectiveness of implementation.

4.15.1 Availability of Minimum Data – In order to ensure effective implementation of the project, there have to be tangible and demonstrable deliverables. An important deliverable would be data generated through various software applications provided to the PRIs. The Expert Group recommends that each PRI should mandatorily provide all data generated by the core common applications. The Expert Group recommends that MoPR may design a common format for such data and make them available through PRI Portals. Help of NIC may be sought in this matter.

4.15.2 Services and Service Levels – Besides the minimum data mentioned above, each State should also define basic minimum services proposed to be provided to citizens and their proposed service levels. Once these are defined, they could be used as effective monitoring parameters to judge the extent and quality of implementation of the programme.

Chapter 5 Capacity Building- ICT enabled Training Intervention

Introduction

5.1 One of the terms of reference of the Expert Group is to examine how effectively to implement distance learning for capacity building through IT. Since distance learning is based on extensive use of information and communication technology, this chapter is addressed to explore Capacity Building- Exploring ICT Enabled Training Intervention.

5.2 Training more recently termed as capacity building continues to be the main instrument for human resource development. It has been recognized as a major input for facilitating the development process, by creating awareness, improving skills and bringing about a change in attitudes. The availability of trained manpower in various development sectors with requisite orientation continues to be a major constraint, unless serious attention is paid to streamline the training process. In spite of all this, the effectiveness of training is being challenged, perhaps because training imparted by them generally lack meaningful impact. There are few surveys or studies available to know the direction or impact of capacity building interventions made so far.

5.3 The concept of training stands at crossroads today between reaching large numbers on one hand and having a meaningful impact of any training intervention on the other. Further, the recent developments in the field of information and communication technology have brought a paradigm shift in the concept and approach to training. On the one hand the conventional system is not in a

position to accommodate large numbers and on the other hand ICT based alternate mechanism including distance learning are not in place all over the country. In our search for alternate mechanism, we have seen that distance education, which has taken roots in the country has added new dimension to it. We also witnessed Interactive Satellite Based Training being experimented by some of the conventional training institutions. These mechanisms have to be put into such a frame work so that they reinforce and supplement each other for cumulative impact of training. This may warrant a fresh look at the concept of training and perhaps explore ICT enabled multi- mode of training intervention to help streamline training process.

Capacity Building- ICT enabled Training Intervention

5.4 The task of capacity building is enormous, as it involves coordinated approach for the massive awareness, orientation and skill development of various sections of society whose capacity building requirements needs to be addressed. The task is also difficult because various envisaged clientele groups such as elected members of Panchayats and associated field functionaries have their own physical limitations and social & cultural inhibitions. It is even more difficult because many elected members are illiterate and first timers. *The past experiences suggest that piecemeal and casual approach is not likely to have any appreciable impact on the situation.* As such, the traditional/ formal system of training alone may not be adequate enough to meet the challenge in a reasonable timeframe. Thus, there is a need for *innovative thinking and approaches.*

Existing Institutional Mechanism

5.5 As there is no exclusive institutional training mechanism for local self-govt in the country. It draws upon three-tier system of rural development training institutions with the National Institution of Rural Development at the national level, 25 State Institutes of Rural Development at the state level and 88 Extension Training Centres at the local level. The Centrally Sponsored Scheme for strengthening/ establishment of State Institute of Rural Development (SIRD) was considered vital for human resources development. This scheme was taken up for implementation during the Sixth Five Year Plan. The 25 SIRDs set up under this scheme included 8 Composite Institutes in Gujarat, Himachal Pradesh, Jammu and Kashmir, Karnataka, Maharashtra, Manipur, Rajasthan and Tripura. After the enactment of the 73rd Constitutional Amendment Act, when Panchayati Raj subject was a part of Ministry of Rural Development, it was decided to strengthen existing training infrastructure both at the State level as well as district level to meet the training requirements of elected Panchayati Raj functionaries and officials. The financial assistance by Government of India to SIRDs was 100% for nonrecurring expenditure and 50% for recurring expenditure. As far as the "ETCs" are concerned, the funding pattern included 100% of Non-recurring expenditure subject to a ceiling of Rs.5 lakh for an existing ETC and 16.60 lakh for a new ETC. The ceiling was subsequently raised from Rs. 5 Lakh to Rs.10 Lakh. It seems that not much thinking had gone into the establishment and strengthening of such centers. Many of the states do not have ETC's. The training structures remained totally inadequate in view of the challenge thrown by 73rd

Constitutional Amendment. After the establishment of a separate Ministry of Panchayati Raj, absence of adequate training structure was more seriously felt.

Post 73rd Amendment Training Scenario

5.6 The post-73rd Amendment scenario witnessed a large number of training institutions getting engaged in organizing training programmes for Panchayati Raj functionaries. These included ***both governmental and non governmental training interventions. However, no co-ordinated or systematic approach was followed.*** The Governmental intervention included extending financial assistance to the states to augment their efforts to train and create awareness and re-orient the elected representatives. It also included financial assistance to select non-governmental organisations for conducting training programmes and holding awareness camps on Panchayati Raj. At the same time three national institutions, namely the National Institute of Rural Development, (Hyderabad), LBS National Academy of Administration (Mussoorie) and Indian Institute of Public Administration (New Delhi) were selected for conducting series of '***Training of Trainers***' programme. Prospective Trainers from the states were to be trained at one of the three institutions and they, in turn, were expected to impart training to PR Functionaries. Both elected representative and officials at the state, district and sub-district levels were to be trained through this training process. The results were not very encouraging. There was limited scope for application and use of ICT enabled training intervention in these programmes.

5.7 Keeping in view the limited output capacity of the conventional training system on one hand and the enormous task of training a large number of elected Panchayat functionaries, ***a distance education programme through Indira Gandhi National Open University*** was sponsored by the Ministry of Rural Development, Government of India. The multi-media distance education package was introduced among 60,000 elected members in the four districts of Madhya Pradesh. Although the package was conferred, '***Commonwealth of Learning President's Award of Excellence***', a serious follow up action to extend the coverage of this intervention was not taken up. It is now being revived by the Ministry of Panchayati Raj through Multi-Mode Training Intervention with support from the United Nations Development Programme.

ICT-enabled Training Intervention

5.8 ICT is pushing us into *the information era and shaping us as a knowledge society* After analyzing training experiences of last one and half decade, it was felt that the approach adopted was a piecemeal approach. As a result it lacked meaningful impact. There have been sporadic successful interventions made through distance mode or satellite based training, these need to be analyzed and institutionalized. The attempt made here is ***to provide choices rather than prescribing any particular intervention.*** The Expert Group also felt that apart from the central component in the shape of 73rd Amendment and Central Programme guidelines, the state specific training processes have to be

evolved. Since 'Information Technology' has taken roots in the country, the following two possible ICT-enabled training interventions were considered desirable to meet the challenge of training millions:

- i. Multi-mode Training Intervention,
- ii. Interactive Satellite-based Training Intervention

Multi-mode Training Intervention

5.9 There is a need for clear vision and strategy to plan and provide for an appropriate training intervention to meet the challenge of facilitating and expediting the silent revolution brought about by the 73rd amendment of the constitution. It is also being realized that time bound and systematic training intervention to provide required *attitudinal orientation and skills is pre-requisite for the success of PRIs*. As a result of the elections of Panchayats in almost all the states, about 34 lakh representatives get elected at different levels of Panchayats after each round of elections. Out of this, a majority is of new entrants, particularly from the weaker sections of the society. The awareness generation and imparting of required knowledge and skills to these elected representatives become essential to enable them to play an effective role in democratic decentralization. *The success of the Panchayati Raj system hinges largely on the extent to which their capabilities are built to enable them perform these functions and responsibilities effectively.*

Target Group

5.10 There are three types of target groups for such a capacity building intervention:

- i. Elected members of the Panchayat
- ii. Field level bureaucracy/functionaries
- iii. Policy makers

Massive Awareness Programmes for elected Members (Distance Mode/IGNOU/ETCs)

Elected Members of Panchayat

5.11 Their number is very large. It is not possible for conventional training infrastructure to accommodate such a large number within a reasonable time frame. Since, awareness generation and imparting of required knowledge is needed, the alternate mechanism is to train them through distance education mode with active participation of grassroots level training institutions. *Both State Open Universities as well as SIRDs could become active partners with IGNOU facilitating effective decentralization of this capacity building intervention through grassroots level institutions like ETC's and NGOs.*

5.12 Such an ICT enabled training intervention can also make use of existing technological infrastructure available with IGNOU. It includes **850 down link centres** spread across the country and **210 (including North-east) interactive Edusat based teleconferencing**. In addition, IGNOU has more than 1600 study centres across the country. After necessary capacity building these centres can also be used/ involved in the above training intervention.

5.13 The ICT-enabled distance education training intervention also requires that all the Gram Panchayats apart from digital connectivity and availability of necessary computer hardware *are provided with television sets and VCD's to facilitate them to view video programmes*. It also requires setting up *Multi-purpose ICT-enabled Training Centres (MITCs)* at each block level, which among other things should have dedicated down-link facilities for occasional two-way video training interaction through Edusat/tele-conferencing mode. This may be extended to sub-block level over a period of time.

Field level Bureaucracy/Functionaries

5.14 The elected members are not expected to operate in isolation. They have to work in partnership with development functionaries in the implementation of grassroots level development interventions. It is, therefore, necessary that there is a *well-planned, well co-ordinated and designed ICT-enabled training intervention for the field level bureaucracy*. Since their number is much smaller than the elected members, *a multi mode training intervention* can be a suitable strategy for their capacity building. We can also bring in Panchayat Sarpanches to this type of class room training because of their day-to-day involvement in implementing development programmes and their frequent interaction with field level functionaries. This can be done by actively involving State Institutes of Rural Development (SIRDsc), State Institutes of Panchayati Raj and selected NGOs who have extensive experience in training mid-level development functionaries. However, the coverage of such training interventions have to be initially limited to those directly involved with functioning of Panchayats such as Panchayat Secretaries etc.

5.15 With a view to optimize the use of existing ICT-enabled resources , it is necessary that SIRDs/ PRTCs, which constitute the *most wide-spread network of training institutes are provided digital connectivity and two-way video interactivity with respective blocks*. The capacity building of these Centres among other things will also include enhancing their competencies for translating and illustrating distance education self-learning print materials in to regional languages.

Policy Makers

5.16 Any type of partnership in development can not achieve desired results unless it has adequate policy backup. It is, therefore, necessary that simultaneous arrangements are in place to sensitize policy makers to the issues involved in materializing democratic decentralization through Panchayati Raj. This can be taken up in collaboration with the national level training institutions such as Lal Bahadur Shastri Academy of Administration (LBSAA), which is best suited for this purpose. IGNOU could provide E-learning capsules/*multi- media packages* (If need be so) to supplement the conventional training interaction.

Diploma in 'Panchayat Level Development and Administration Through Distance Mode of Learning'

5.17 There are more than 3 million people elected at various levels of Panchayati Raj Institutions. A number of steps have been taken by various organizations during last decade and a half to develop awareness and other programmes for these elected members, There are more than million development functionaries across the country serving these institutions and working shoulder to shoulder with elected representatives, whose capacity building did not received desired attention..There are exercises/ activities entrusted to the Panchayats that need expertise and coordinated action by various development functionaries. This Diploma Programme in Panchayat Level Development and Administration through distance mode of learning is addressed towards fulfilling this task. Keeping in view spread and use of computers throughout the country, the programme will also attempt to promote computer literacy. *This programme could be put on e-learning mode as well.*

5.18 The State Institutes of Rural Development can be encouraged to develop and offer similar **Certificate Programmes** for development functionaries. Kerala Institute of Local Administration (KILA) and Kuvempu University, Shimoga District (Karnataka) are already offering such programmes. They need to be examined for replicability. They can tie up with respective State Open Universities to convert them into distance learning mode. IGNOU can provide overall guidance.

Interactive Satellite-based Training Intervention

5.19 There are three main types of training options commonly being used. These include the following:

5.19.1 Face-to-Face Training – The best form of training particularly for skill development component is the face-to-face mode of training. Nothing can replace the efficacy of this mode of training. However, the sheer number of participants to be addressed and the limited time span within which they have to be addressed puts lot of limitations on this conventional class room training option.

5.19.2 Cascade Mode of Training – This form of training combines the advantage of face-to-face training while at the same time addressing the issue of large numbers and limited time by training in parallel and decentralized manner. However, it tends to be non-serious over a period of time, the contents tend to get diluted over a period of time, or even distorted as it travels from one level to another level and the sheer time taken to monitor and act upon the observations is large.

5.19.3 Interactive Satellite based Training: This mode of training effectively combines all two of the above approaches by taking advantage of their strengths and reducing their weaknesses. This mode of training uses a dedicated satellite channel (provided by the ISRO) for beaming programmes to specified centers for being viewed by trainees. The approach given below has been adopted by Karnataka ANSSIRD, Mysore for capacity building of PRIs. The Expert Group felt that this approach may be adopted by other States with appropriate local variations.

5.20 In this approach, a cascade mode of training is adopted to train resource persons up to taluka or block Panchayat level. The resource persons become local facilitators during the satellite based

training session. The experts/panelists sit in the teaching or beaming end (which is at State headquarters or it could be an SIRD) while the participants sit at the training/receiving end. This ensures face-to-face interaction between the participants and the experts. Training may be conducted on-line (transmitted through satellite) or offline (by playing a recorded CD) locally. All training material in the form of films, power point presentations are centrally prepared. The local resource persons then conduct facilitated group discussions locally (offline). This is followed by an interactive question-answer session with experts/pane lists in the teaching end. Thus, face-to-face interaction with both local resource persons as well as experts is ensured. Further, even if the local resource persons are not very effective, this mode of training ensures uniform levels of seriousness, makes instantaneous monitoring feasible and corrective actions fast. Further, corrective actions taken at one place can be notified to the entire State in an instant way. This mode of training covers a large section of the participants in parallel sessions, thereby reducing the time taken to complete the training programme for the entire State. Of course, there is a limitation on the number of satellite channels which would be available. This problem, however, can be overcome to some extent by using the satellite channel for interactive question-answer session while conducting other activities offline.

5.21 Technology options for interactive satellite based training – In simple terms, the Satellite based interactive communication system consists of the following:

- i. A Studio at the teaching end
- ii. An earth station including up-link dish antenna
- iii. Satellite and
- iv. Receiving System at the classroom end

5.22 A schematic representation of the system established by ANSSIRD, Karnataka is given below:

5.23 Broadly, the transmission from the teaching end to that of the receiving end may be classified under the following two categories:

- i. Television based broadcast (TV)
- ii. Internet Protocol based broadcast (IP)

5.24 The Features among other things include the following:

- i. Redundancy is ensured in every receiving centre by the provision of one set of audio / visual material as well as print material
- ii. Supplementary reading material is provided in the form of text matter or FAQs (frequently asked questions) – both of which are in the adult reading material format
- iii. This is further supplemented by wall newspapers / charts provided to every Gram Panchayath
- iv. Community mobilization in the form of street plays and ballets (Kala Jathas) which are performed at the village level for general community complimenting the training. Further, the street plays have been filmed and copies are provided to Panchayats for regular

screening among the community.

- v. The Print-Cast technology (provided by Hewlett Packard) complimenting the satellite based training system as follows: The training is audio-visual mode. The Print cast Technology which has been pilot tested and is in the process of being incorporated along with the existing system enables the printing of essential circulars, government orders, other important reading / reference material relevant to the audio-visual transmission alongside the same.

5.25 ANSSIRD, Mysore is using the TV-based broadcast. Detailed comparison between the two modes of transmission, i.e. TV based, IP based would be difficult as the transmission quality would depend on various quality parameters of the equipments that are part of the system

Integrated Capacity Building Centres (ICBCs)

5.27 It was noted that all the rural development programmes introduced from time to time have their own capacity building component. There is no integration of these components of various programmes, which not only results in to lack of impact but also lack of sustainable training infrastructure. The funds allocated under various programmes for training could be pooled and used to strengthen this mechanism for long-term sustainability and impact. It was, therefore, felt that there is a strong need for a sustainable training mechanism to be kept in place at the lowest possible level. Block/Mandal/Janapad level was considered to be the most appropriate level for a network of Integrated Capacity Building Centres to be established throughout the country. These Capacity Building Centres could become hub of training activities for PRIs. However, they need to be well equipped with physical, human resource and technological infrastructure. They can serve as 'Local Self-govt. Training Centres' replacing existing Extension Training Centres network. At a later stage 'Help Line' concept can also be build in to it. The physical and technological infrastructure among other things to be provided at ICBCs may include the following:

- i. A well furnished 'Training Hall' which can accommodate 30-35 participants along with one equipment and one office room.
- ii. A White Board, which can be used both as a screen as well as a board.
- iii. One LCD projection System./ LCD T.V
- iv. One Overhead Projector
- v. Two Computers with a printer
- vi. A Xerox Machine
- vii. Down-link facility
- viii. Internet Connectivity
- ix. Telephone Connectivity

5.28 Besides the Integrated Capacity Building Centres (ICBCs) at the block level, the ANSSIRD model is working on the setting up of village level learning centres enabled by a TV and accompanying systems to be able to view various audio-visual material pertaining to various sectors of development – this is to essentially enable concurrent learning and by the community and their capacity building besides capacity building of elected representatives / functionaries / Policy Makers

Conclusions

Training is a process aiming at improving the efficiency and effectiveness of people by enhancing their functional knowledge and skills and changing attitudes required for the accomplishment of their assigned responsibilities at a desirable level of performance. ICT is expected to make this process more interesting and effective. The interaction of some of the Expert Group members with state governments through video conferencing and interactive discussions with technology leaders in the country revealed the potential and promise which ICT holds in catalyzing capacity building processes in the country. The outcome of these discussion sessions revealed that our country is rich and progressing in technological development and that private sector technology leaders have an important role to play in revolutionizing capacity building interventions in the country. A number of states have turned or in the process of computerizing grassroots level institutions. The process of ICT enablement has to be tailored in such a way that would ensure all round, continuous and sustained process of capacity building. The recommendations made reflect what needs to be addressed.

Recommendations

1. The Expert Group felt that application of ICT in capacity building interventions has become inevitable. It is, therefore, suggested that the States may choose such training interventions which entails full use of modern communication technology to reach large numbers. Accordingly multi-mode training interventions through distance mode and satellite based training intervention qualify for serious attention by States and Union Territories.
 2. The Expert Group recommends that establishment of Integrated Capacity Building Centres at block level be taken up earnestly as a short-term strategy for sustainable capacity building intervention. In smaller & hilly States where two-tier PR system is in place, ICBCs could be established at cluster of village Panchayat levels.
 3. The Expert Group strongly recommends that necessary physical and technological infrastructure for capacity building be kept in place as detailed out in the main report.
 4. Apart from other technological infrastructure, the Expert Group recommends that each Gram Panchayat be provided with a television set along with VCD to facilitate viewing video programmes as well as direct telecasts from various channels like Lok Sabha and Raja Sabha Channels.
 5. It was also strongly felt that there is a need for convergence of capacity building component funds in order to ensure sustainability and long-term impact. This chapter summarizes and consolidates the recommendations detailed in individual chapters:
1. Given the varied levels of functional devolution and availability of other associated infrastructure, it is natural to prioritize the implementation to start from those states having greater devolution and other supporting infrastructure. But such an approach will increase the digital divide. On the other hand, including all states in such an initiative will encourage and motivate the states to walk

towards greater devolution to the Panchayats. The Expert Group, therefore, recommends that the project should have two or more categories of Panchayats (high, medium, low) based on their overall preparedness and work out different plan for each of the category. The Panchayats with high preparedness should be encouraged to take up the integration of the three tiers of Panchayats. Similarly, Panchayats with low preparedness could be put on the local standalone automation of Panchayats. Medium category Panchayats could be allowed to take up more functions.

2. The Gram Panchayats being the most decentralized of our institutions, it is necessary that the same decentralization in information management is also bestowed upon the PRIs.

3. The expert group arrived at the following functionalities as imperatives for introducing e-Governance in Panchayati Raj Institutions:

- a. They are able to better participate in the District Planning Expert Group process and bring in an element of felt needs to the plans.
- b. They can handle the financial accounting as well as financial reporting guidelines vis-à-vis Panchayat Funds and all schemes and functions being implemented through Panchayati Raj Institutions.
- c. They can offer the citizen services that have been devolved to them with a provision of adding more services as they get devolved.
- d. Enhance their ability to generate, manage and collect local revenue.
- e. Provide external linkages for speedy and transparent transfer of funds; markets; communication with state and central government departments etc.
- f. They are able to automate their own functioning e.g. records of the minutes of meetings of the Gram Sabha etc.
- g. To provide external visibility for all the above mentioned areas for enhanced public participation such that there is transparency and ability to facilitate social audits strengthening the Panchayati Raj based delivery systems.
- h. As a mechanism for capacity building.

4. **Hardware - The following Hardware is proposed to be provided to each Gram Panchayat:**

- One PC (with web camera)
- One multi-function printer (laser printer + scanner + fax)
- One UPS
 - Any additional requirement of PCs may be decided by States keeping in mind the above factors.
 - As for IPs, the Expert Group recommends the following minimum hardware:
- Three PCs (with web camera)
- One multi-function printer
- Two UPS
- One eight port switch to establish LAN within the IP

Since ZPs have fairly good hardware infrastructure, the Expert Group feels that MoPR need not invest

in the provision of hardware to ZPs.

5. In order to speedup the process of procurement and to achieve economies of scale, the committee recommends that MoPR may centrally empanel venders while procurement could be done at the State level.

6. **Open Standards** - In view of the large scale social, economic and strategic implications an initiative of this nature would entail, the Committee recommends that the strategy of adoption of ICT should ensure that the systems which are built are interoperable, avoid vendor locking and consequently follow open standards as laid down from time to time.

7. **System Software** - In view of the fact that the system software is a strategic product which has large implications on the country as a whole in terms of its support and sustainability and freedom to use it, the Expert Group recommends that Open Standards and Open Source technology should be adopted for the project. However, keeping in mind the existing PC's in Panchayats in some states, the Group decided that in the case of Operating System, while Open Source Operating System is the preferred platform for computer operations, the States may choose any other Operating System (OS), if required, using their own financial resources without affecting the core and common requirements.

8. **Application Software** - The Expert Group recommends a twin pronged strategy for the development of application software for PRIs:

8.1 In the first approach, a certain minimum set of **core applications** should be built centrally and standardized to manage the core functions of planning, fund allocation, accounting and project monitoring and reporting. These relate to the development of the citizens in the PRIs and hence their effective implementation is extremely important for the overall development of the country. Building these applications centrally will ensure their speedier implementation and also higher level aggregation can be performed seamlessly.

8.2 The second requirement of application software would be driven by various services which can be derived out of the core for the citizens in the gram Panchayats and other levels. The processes for such service delivery will vary on the model selected by the State Governments. They will also depend upon the extent of devolution to the PRIs. Consequently there will be a variation in the application software at the State level and may be built by the states. However, MoPR may built **reference applications** centrally to help in evolving standards and also provide one of the solutions to the state government, if they so desire. In case states wish to develop their own software along with the basic model, they should be free to built such a software for themselves.

8.3. The Expert Group further recommends that while building any application software solution for PRIs, care must be taken to build both online as well as offline solutions; the online and offline solutions should seamlessly integrate and synchronize with one another. Further, as far as possible, the online and offline versions of the software should have same or similar user interface to enable users to

switch from one to the other without much effort.

8.4 The Expert Group also recommends that all application software should be built in a platform independent manner so that they can be reused and replicated across the country.

9. **Connectivity** - Currently, there is no dedicated network that is extended up to Gram Panchayat level. Both NICNET & SWAN are contemplating last mile connectivity through broadband, dial-up and VSAT. The Expert Group recommends that for Gram Panchayats, the following connectivity options, may be explored in the given order:

- Broadband connection with minimum 256 KBPS (wired or wireless)
- Dial-up and
- VSAT

10. The Expert Group also recommends that the Internet Service providers (ISPs), who will provide this connectivity, should establish a dedicated link with the data center(s) where PRIs data is stored, to enable faster and cost-effective access.

11. **Domain-specific Data and Metadata Standards** - As the process of e-Governance gains momentum in PRIs, there would clearly be a need to exchange information and data, among PRIs and with other government institutions, both within as well as across states. Ministry of Panchayati Raj, being the nodal Ministry, is rightly positioned to take up the mandate and coordinate with the states to define various data and metadata standards and ensure their adoption and adherence. The Expert Group, therefore, recommends that Ministry of Panchayati Raj should set up a Expert Group which is entrusted with this task. The Expert Group could be formed with members drawn from various states. MoPR could take help from DIT or NIC in technically guiding the Ministry on the issue.

12. **Application Software Need Assessment** -The Expert Group recommends that each state should prepare a comprehensive need assessment document, in consultation with each tier of PRI. The document should broadly address the following issues:

- Identify areas of computerization at each tier based on activities assigned (level of governance) to each tier of Panchayat (Activity Mapping)
- Prioritize areas as per the needs of internal and external stakeholders

13. **Capacity Building**

13.1 The Expert Group felt that application of ICT in capacity building interventions has become inevitable. It is, therefore, suggested that the States may choose such training interventions which entails full use of modern communication technology to reach large numbers. Accordingly multi-mode training interventions through distance mode and satellite based training intervention qualify for serious attention by States and Union Territories.

13.2 The Expert Group recommends that establishment of Integrated Capacity Building Centres at block level be taken up earnestly as a short-term strategy for sustainable capacity building intervention. In smaller and hilly States where two-tier PR system is in place, ICBCs could be established at cluster of village Panchayat levels.

13.3 The Expert Group strongly recommends that necessary physical and technological infrastructure for capacity building be kept in place as detailed out in the main report.

13.4 Apart from other technological infrastructure, the Expert Group recommends that each Gram Panchayat be provided with a television set along with VCD to facilitate viewing video programmes as well as direct telecasts from various channels like Lok Sabha and Raja Sabha Channels.

13.5 It was also strongly felt that there is a need for convergence of capacity building component funds in order to ensure sustainability and long-term impact.

Adoption of National Panchayat Portal (NPP) –The Expert Group recommends that MoPR should encourage states to take advantage of this facility created by MoPR and commence its utilization at the earliest.

Adoption of Indian Language UNICODE fonts – The Expert Group recommends that MoPR may follow up with C-DAC and other font providers to expedite the development of Indian Language UNICODE fonts for all Indian languages. MoPR may seek technical support from NIC or DIT in this regard.

Facility Management – The State PR Department may decide on one or more options, depending on local requirements.

17. The Expert Group recommends that the State Government will have to meet the residual requirements including:

- i. Provisioning of a generator wherever the electric supply is below 8 hours;
- ii. A TV and DVD/CD Player may be provided as recommended in the chapter on Capacity Building by the State Government.

Proceedings of the Consultation with States GOA

- The SIO (NIC) and Director, Panchayati Raj of the State attended the VC.
- It was explained that the State Government is establishing Common Facility Centres (CFCs) which will provide Citizen Centric Services for a charge. The amount due to the Panchayats would be transferred to them. The CFSs are an optional window and the Panchayats will continue to offer various services to the citizens.
- The CFCs would use the State portal since the applications would be Web-based.
- Under the Info-Gram Scheme where NIC is helping the Directorate of Panchayati Raj, the applications are also Web-based but have been deployed only on decentralized basis.
- Training of elected representatives has not been undertaken.

ORISSA

- Director and Additional Secretary, Panchayati Raj attended the VC.
- The State is frontrunner in e-Governance has VSAT connectivity has been provided since 2003 to all the 30 DRDAs and 314 Panchayat Samitis.
- The 6234 GPs have not been provided computers due to non-availability of internet connectivity.
- It has been decided to purchase 150 PCs out of the grant of Rs. 1 crore received from MoPR in 2005-06, during the current year.
- Besides, the PCs, Printer and UPS would also be provided.
- The VSAT connectivity provided under GRAMSAT Pilot Project but it has been found to be inadequate and broadband is being contemplated.
- Primary Cash Book Software being used is PAMIS developed by Xavier Institute of Management. Other application software used are PRIASoft for Blocks as well GPs and RuralSoft for project monitoring as well as NREGA online. For GPs the data entry is done at Block level.
- In Blocks, the data entry is being done by Programmers and Additional Programmers provided since 2003-04.

RAJASTHAN

- Shri Khemraj, Secretary & Commissioner, Panchayati Raj attended the VC.
- The State Government have initiated CARISMA Project for computerization of all Panchayats. This is a web enabled centralized software and therefore, dependent on connectivity.
- In the first phase, all 32 ZPs, 237 Panchayat Samitis and 1100 GPs have been covered.
- 200 of these GPs have started feeding data online.
- In Phase II, the remaining 8088 of the 9188 GPs would be computerized for which assistance has been requested from MoPR.
- The Master Servers have been located at State Headquarters where the software is loaded.
- The States have developed their own software.
- The project is being implemented as turn key one with the help of ITI which has made this software based on Microsoft Technology.
- Training is also being provided ITI personnel.

WEST BENGAL

- Joint Secretary attended the VC.
- The State is rolling out CSC Project of DIT shortly.
- The project has been aligned with Panchayat Computerization as in all 3354 GPs, the CSCs would be located in Panchayat Buildings and would be utilized by Panchayats also.
- Computerization of Panchayats already being implementation with the help of assistance received from MoPR during 2006-07 under Rashtriya Gram Swaraj Yojana.

PUDUCHERRY

- Director, Panchayati Raj attended the VC.
- 98 Village Panchayats and 10 Commune Panchayats in the UT.
- Assistance from MoPR being utilized for providing computers to Village Panchayats as all 10 Commune Panchayats have 5 Printers and 5 PCs each.
- This however, is awaiting DGS & D rate contract for implementation.
- Dedicated Data Entry Operator available in Commune Panchayats as regular employees.

- Double Entry Accounting System not implemented.
- Vital statistics such as Birth and Death certificate and House Tax application have been computerized.

KERALA

- Principal Secretary, Panchayati Raj attended the VC.
- 999 Village Panchayats, 152 Block Panchayats and 14 Zilla Parishads.
- Procurement complete for 922 VPs although not all computers fully installed.
- About 300 VPs have computers for the past 2-3 years.
- All Zilla Panchayats and Block Panchayats have computers.
- 1 Server and 2 Clients, UPS, Dot Matrix Printers with LAN have been provided.
- Connectivity proposed through SWAN up to Block level and Dial Up at VP level.
- In District, Technical Assistant and Coordinator and in Blocks a Technical Assistant with 3 year diploma provides hand holding and troubleshooting.
- No creation of post has been undertaken for computerization.
- Extensive application software development has been locally.
- These include software called Sulekha which is a plan monitoring application and is operational in 205 Gram Panchayats.
- There is an application called Sevana which is a registration package and handles certificates like birth and death. This application is also available through kiosks in hospitals.
- An application called Sankhya handles financial accounting and has been operational for over three years.

SIKKIM

- Director, Panchayati Raj attended the VC.
- 166 GPs and 4 Zilla Parishads out of which computers installed in all Zilla Parishads (5 PCs) and 157 GPs.
- Connectivity and Application Software not provided.
- CICs which are 20 in number and under IT Department have connectivity.
- Funds given by MoPR in 2005-06 and 2006-07 utilized for providing hardware and installation.

Short Summary on Open Technology

Collaborative & Distributive Software Development Methodology of Open Source Software has impact on various domains for Sharing of Knowledge with Openness; This leads to the emergence of new umbrella of technologies known as Open Technology.

Open Technology includes components like

- a. Open Standards
 - b. Open Source Software
 - c. Open Hardware
 - d. Open Product Designs
 - e. Open Courseware
1. **Open Standards** are publicly available specifications to achieve a specific task (like transmit, store). A license not conditioned on payment of royalties, fees or other considerations must be available to all implementers of the recommendation, regardless of whether they are members or not. It is safer to opt for standards developed by Standards Developing Organizations (SDOs) such as W3C: World Wide Web Consortium which favors Royalty Free licensing. ex: HTML, ODF, ANSI-SQL etc.
 2. **Open Source Software** are software managed by a collaborative development process with free accessibility of code and free distribution models. Open Source software have the following

features:

- a. **Small Foot print** that would allow the use of older computers
 - b. **Flexibility** in adapting seamlessly to the need for new information, technologies, protocols while integrating them with government processes;
 - c. Service orientation rather than Product orientation for induction of IT Solutions in e-Governance;
 - d. Innovation through community development which leads to Knowledge-base relation,
 - e. Open Standards
 - f. Vendor-Independence
 - g. Low cost of roll out of e-Governance solutions to have wider reach-out
 - h. Better Software Security because of availability of source
 - i. More Reliable and Stable Software because of wider testing and faster fixation
 - j. Self-Reliance and reduced-dependency on import of software
 - k. Development of Local Software Capacity Building
 - l. Better National Security by avoiding mistrust and suspicious software
- Examples of Open Source software include Mozilla-Firefox, OpenOffice, PostgreSQL etc.
3. **Open Hardware** are hardware managed by its collaborative development process with free accessibility of design, interfaces and creative-tools. Examples include Open-Firewall, Open-Router, TuxPhone, OpenMoko Smartphone etc.

A Short summary on Open Source Software

A. What is open source software?

The traditional model for acquiring and using software is the executable program itself, which is purchased, and by using it, the end-user agrees to a proprietary software license. Releases to patch or upgrade to the purchased version of the software may be available as long as you continue to pay annual maintenance fees. The underlying source code that determines how the software operates is not distributed and the license may expressly prohibit any modifications. Any changes to the program's functionality must be addressed by the vendor. If a bug is discovered, the vendor is the only entity that can fix it. If they do not have the resources to do so, or choose not to allocate resources, the bug can remain in perpetuity.

Conversely, open source software is distributed with the source code and, under a license, (typically the GNU Public License) which allows others to modify and re-distribute their changes with the appropriate notifications. Continued development of the software is done by others using the product. Support for it is not necessarily provided by a specific vendor, but there may be a community that can help answer your question. One of the most successful open source software initiatives is the Apache web server.

B. Why use open source?

Any institution should consider open source alternatives for many reasons, the primary reason being that it eliminates dependence on a vendor to fix a bug or implement a feature. Even if an institute does not have the in-house expertise to do the development themselves, because the underlying code is available, it may be possible to hire a consultant or another vendor to extend the product in needed

ways. Most importantly, it gives institutes more control over their software which, in a way, they have relinquished to their vendors.

Another reason to consider an open source alternative for institute systems is that it may extend support available to you. Instead of relying on technical support from the vendor, your support comes from the software community of developers. Depending on how extensively the product has been distributed, you may actually have more support available to you. There are also companies that you can hire to help support open source products.

The cost of acquiring and implementing open source solutions may be less than traditional proprietary software. Consider what you paid your vendors in the last maintenance contract and compare that to the "free" cost of the open source software. There are still costs associated with open source software. Providing the hardware necessary to run the product and investment in the staff needed to support an open source, while still costing the institute money may be much less than the total cost of running a proprietary software system.

C. Why not use open source?

Of course with each of these realized benefits of open source comes a new set of issues. Perhaps the institute does not have the in-house expertise to support the product. Or they have the expertise but not the time to devote that some open source solutions require. Paying a vendor to help you support an open source product may be a possibility and will still give you the flexibility to move your software and support to another vendor should the need arise.

Would the institute be comfortable relying on a community of volunteers as the primary means of support? Is the community large enough and responsive enough to meet your needs? This model of support may not meet the needs of all institutes that prefer specific support hours and staff made available through a support contract.

Each open source solution should be carefully evaluated to determine whether it will integrate with the current technical infrastructure. If it requires additional hardware or other integration tools you are not prepared to add, then the product will not be a good choice. If the product cannot be easily altered to fit into your current environment or extended to add features you require, it may not be an appropriate option. You should also determine if it uses the same standards the other systems use. Just as you would evaluate the purchase of proprietary software, open source software should be vetted the same way.

National Panchayat Portal : Strengthening Panchayat Biradari

When the Hon'ble Union Minister for Panchayati Raj, Shri. Mani Shankar Aiyar, assumed office, he desired that there should be a platform that would enable all institutions involved in strengthening and implementing Panchayati Raj including Ministry of Panchayati Raj, the State Panchayati Raj Departments and the Panchayati Raj Institutions across the country to so seamlessly network with one

another and with the rural citizenry that any information that one stakeholder wants to convey to others should be done as quickly and as effortlessly as possible. His desire was realized in the virtual space by National Informatics Centre as the **National Panchayat Portal (NPP)**, a web of interactive, dynamic web portals of PRIs.

The National Panchayat Portal is a collaborative, content management and portal generation framework that generates portals dynamically and allows seamless exchange of content among all participating sites. Broadly, the features offered by NPP include:

- Content Creation
- Content Editing & Versioning
- Content Publishing, organizing and rendering in the portal site
- Content Indexing & Searching
- Garbage Management - Content Archiving & Deleting
- Content Transfer over various communication channels (email, floppy, http)
- Content Exchange using Open Protocols and Metadata Standards
- Collaboration using Messaging Services

Among the features listed above, the features of collaboration among users and sites is one distinguishing feature that strengthens the Ministry's requirement of a National Panchayat Biradari.

Collaboration among users

Messaging allows all registered users of NPP to send messages to other users belonging to the same or different site. Citizens can send a message to other citizens and/or PRI officials and vice versa. The advantage of the messaging service provided by NPP is that it is asynchronous and can work without the need for Internet. Thus, a constituent of a village PRI which is disconnected from the Internet could still send a message to the Minister of Panchayati Raj. As soon as a message is composed and sent, it is packaged and can be captured in a floppy and subsequently uploaded to the MoPR site through floppy, e-mail etc.

Collaboration among Sites – Seamless Exchange of content

NPP allows both selective sharing of content as well as mass broadcast. Each participating site can decide which content to share with which PRIs. The receiving sites can set filters to selectively receive content from the broadcasting site. Thus, if Ministry of Panchayati Raj desires to broadcast a new notification to all the Panchayats in the country, it only has to upload it in its own site and transfer the content to all the PRIs through a single click. All the PRIs, on the other hand, can receive the content (after it is processed by site filters) and either publish automatically or after examining the content. This kind of content exchange can happen among any of the participating sites. Thus, NPP provides a very simple, easy-to-use and cost effective platform for building and maintaining a National Panchayat Biradari.

Recommendations of the Seventh Round Table Conference

SEVENTH ROUND TABLE OF MINISTERS IN-CHARGE OF PANCHAYATI RAJ held at Jaipur from 17-19 December 2004

1. It is recognized that IT (Information Technology and Communication) is *a vital input of capacity* for Panchayats so that they can perform their constitutionally and legislatively mandated functions better.
2. IT ought to be primarily positioned as :
 - a decision making support system for Panchayats themselves;
 - a tool for transparency, disclosure of information to citizens, social audit;
 - a means for better and convergent delivery of services to citizens;
 - a means for improving internal management and efficiency of Panchayats;
 - a means for Capacity building of representatives and officials of the Panchayats;
 - an e-Procurement medium.

In this endeavour, the Round Table specifically proposes the following initiatives:

Process Re-engineering:

3- All States shall undertake a time-bound exercise of process re-engineering in consonance with the activity mapping already being undertaken by them for the functions transferred to the Panchayats, with a view to moving the processes of decision making, implementation, disclosure to the public, delivery of services and reporting and dissemination of information to Panchayat representatives to an IT-enabled environment.

4, In this exercise regard shall be had to avoid duplication of hardware and software initiatives by different State government departments and agencies.

5, Considering the functional domain of Panchayats that potentially extends to 29 subjects listed in the Eleventh Schedule, all e-Governance initiatives at the local level have to converge with the appropriate PRI as the nodal point.

Data Ownership;

6, Such re-engineered processes shall ensure that the ownership of the data collected at the Panchayat level is with that level in the first instance, as the system becomes sustainable when those who use the data feel that they own it,

7. While owning the data, the Panchayat could also operate, outsource or provide space to IT enabled multi service kiosk centers that provide IT enabled services to the people, including those that fall, within the functions of the Panchayats.

8. The Community Service Centers being rolled out by the Ministry of Information Technology at the Centre may be located in the Panchayat offices so that Panchayats' services can also be delivered through these Common Services Centers (CSC).

Training;

9. There has to be a systematic approach on training of staff and Panchayati Raj members through a cascading mode on use of IT.

10. The opportunities offered by the satellite connectivity provided through the ISRO, including EDUSAT, can be used for undertaking training.

11. While developing training material, regard shall be had to design user friendly approaches that can facilitate training of the illiterate or the neo-literate.

Software:

12. Development of common software application packages with provision for appropriate customization by states is preferred. In this connection, the National Informatics Centre ("NIC"), which being a government body present in all districts of the country and which has already done considerable software development for Panchayats, may be considered as the primary software provider.

13. It is recommended that NIC strengthens themselves at all levels and provide dedicated staff

through creating a Panchayat informatics division, with a time bound mandate to develop e-Governance solutions to all levels of Panchayats. This will include the strengthening of the District Informatics Office of the NIC to support the District Planning Committee and the Panchayats.

14. The National Panchayat Portal developed by the NIC for the Ministry of Panchayati Raj to become the information hub that links up Panchayats, the State Government and the Central Government for sharing of information, experiences and best practices. As a first step, all State governments may Immediately link and port the content of their existing Panchayat Raj websites or portals to the National Panchayat Portal and all District, Intermediate and Village Panchayats can be enabled and facilitated to link up with the portal. The content can be regularly updated by the respective stake holders.
15. A repository of software solutions already developed by several states shall be maintained by the Ministry of Panchayat Raj or an institution nominated by it, so that they can be used by other states.
15. Software development shall be primarily undertaken in open source software, with Indian language inter-phase, so as to reduce cost of replication and licensing.

Hardware:

17. States should consider specifying a framework for common standards for hardware and put in place a system for transparent procurement through competitive bidding,
18. Funds for acquisition of hardware could be dovetailed from various sources and could include Infrastructure funds available in multilaterally funded projects, Own incomes of Panchayats, Funds recommended by the Finance Commission for the creation and maintenance of Databases, Funds sourced from fund to be created and managed by the Ministry of Panchayati Raj, MP and MLA Local Area Development funds, Purchases based on systems of annuity based purchases,
19. Considering the present power situation In the country, while procuring hardware, special attention shall be paid to providing reliable and uninterrupted power supply to computer systems. Special emphasis shall be placed on renewable energy devices and systems that consume less energy.

Infrastructure and connectivity:

20. it is recommended that the NIC expands its communication network, NICNET, to link all Panchayats at all levels by using State Wide Area Network funds provided by the Department of Information Technology, Government of India.
21. State governments can approach ISRO for providing satellite based connectivity in all the states to enable connectivity of all Panchayats. The initial infrastructure cost could be considered to be met or supported by an infrastructure fund that could be operated by title Ministry of Panchayat Raj.

Operationalisation of the plan:

22. The initiative of empowering Panchayats with IT capacity shall be treated on par with creating national infrastructure such as power, telecom and roads.
23. Formulate a mission mode/empowered committee mode for IT enabled automation of Panchayat institutions with NIC and other solution providers, keeping in view the national e-governance action plan of the Government of India.

Capacity Building & Training:

1. Training and communication ought to reach all PR1 functionaries and elected representatives, namely-
 - (i) Gram Panchayat Members, Chairpersons and Office bearers,
 - ii) Intermediate Panchayat Members, Chairpersons and Office bearers,
 - (ii) District Panchayat Members, Chairpersons and Office bearers,
 - (iv) All officials concerned at National, State, District, Intermediate & Village level; and

- (v) Standing Committee members at all levels.
2. There should be special effort made towards sensitizing the media, political parties, representatives in the legislatures, civil society organisations and citizens,
3. There must be special campaigns for mobilization of Gram Sabha members.
4. There must be Panchayat system within 3 months of their entry.
5. Training for PES special training for women, SC/ST representatives as well as first time entrants into the pA areas should be designed so as to have regard to the cultural traditions and special needs of tribal people,
6. Training and communication should not be viewed as a single one-time intervention but should be a continuous, ongoing process leading to enhanced sense of self esteem and confidence; Training should cover both the "before" and "after" election periods. Initial, training and communication should reach –all elected representatives within one year.
7. For those Panchayat members who need it, a functional literacy training course should be undertaken immediately after their elections.
8. The Panchayats should be encouraged to have a sense of ownership of the training programmes and play a major role in designing content and mechanisms of training. To this end, there must be representation for Panchayat members in the governing boards of training institutions that cater to their needs.
9. Content of training should press on strategic and technical aspects and should be based on a systematic-Training Needs Analysis arrived at through multi-stakeholder consultative workshops, which would precede the design of training modules and materials.
10. There should be a minimum core curriculum that is common across the States adapting to suit local contexts. Core curriculum should include :
 - (i) Vision on purna swaraj through Gram swaraj;
 - (ii) Principles of secularism, equality and human rights emanating from the Constitution of India;
 - (iii) Gender equity and social justice;
 - (iv) Status of human development;
 - (v) Poverty alleviation;
 - (vi) Participatory planning, implementation and monitoring;
 - (vii) Right to information and transparency;
 - (viii) Social Audit; and
 - (ix) Rules and regulations covering Panchayati Raj.
11. Overall perspective of training must reinforce issues of social equity, gender sensitivity and justice among all participants in the process of Panchayati Raj, including all levels of the bureaucracy.
12. Thematic curriculum should include:
 - (i) Human Resource Management,
 - (ii) Natural Resources Management,
 - (iii) Disaster Management,
 - (iv) Financial management, including own resource management and accounting,
 - (v) Sectoral approaches into providing basic human needs
13. Training Strategy should be inclusive, participative and interactive and a composite mix of various interventions:
 - (i) Face-to-face participatory training;
 - (ii) Exposure visits;
 - (iii) Peer training/learning;
 - (iv) Satellite training;
 - (v) Radio/cassettes/ films;
 - (vi) Traditional means of communication;
 - (vii) Newsletters, updates and digests of replies to Frequently Asked Questions;
 - (viii) Resource centers and Help Desks for Panchayats.

- 14 Training content and processes should be relevant to the ground reality of elected representatives. It should continue to develop and evolve based on feedback and impact assessment. Training should become a two way process so that feedback can help in reforming the content and process of training, as also result in systemic changes in Panchayat and government functioning.
- 15 States should move towards formation of training networks and collectives to share experiences, learn from each other, and access material from each other. States should also institutionalize collaboration with Community-based organisations at the State, District, and Block level.
- 16 Training should inspire elected representatives to form federations or collectives and facilitate them to voice their demands for genuine devolution and development.
- 17 Trained members should be encouraged to become resource persons for further training of Panchayat representatives, peer to peer learning, both within and outside the state through regional or national tie-ups should be encouraged and supported.
- 18 Training should include exposure to best practices through visits to other Panchayats.
- 19 All open universities may tie up with IGNOU and build linkages with the SIRDs and other like institutions engaged in training and capacity building.
- 20 Training programmes shall be designed especially for the secretarial and technical staff working with Panchayats through institutions such as IGNOU. Such training programmes should lead to formal certification on achieving prescribed standards of learning.
- 21 Education in democracy and the constitutional role of Panchayats as institutions of local self-government should be made part of school curricula.
- 22 It shall be the endeavour of the central government to provide in as short a time as possible, a Panchayat capacity building fund through the Ministry of Panchayati Raj, which could include a certain percentage of central transfers specially earmarked for that purpose. Similarly, state governments should also create a Panchayat Capacity Building Fund for periodic training.
- 23 There should a national perspective plan on decentralized training and capacity building for all PRI functionaries with specific objectives, timeframe and resources.
- 24 States can benefit by the use of pedagogy and training techniques with information accessible to all. The Ministry of Panchayati Raj could develop a repository of training programmes, including training resources and manuals developed by the Commonwealth. Development of master modules in training in issues of gender, poverty, mass communication etc. could also be developed.
- 25 Independent training impact assessment studies should be periodically undertaken to assess the outcomes of training .and inform emerging needs for follow up.
- 26 States shall work towards up-gradation of training centers, such as SIRDs, and extension training centers at the district, block level and below.
- 27 With respect to the training needs of Panchayat members from the Union territories and States with Sixth Schedule areas, the Government of India would identify an SIRD or a group of institutions that could undertake the training.

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Source: Ministry of Rural Development, Govt. of India

