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INTRODUCTION

The World Conference on Education for All (WCEFA, Jomtien 1990) reaffirmed the universal right to education, promoting an expanded vision of basic education and a renewed commitment to ensure that basic learning needs of all children, youths and adults would be met in all countries. However, the efforts required to translate this right into reality depend, not least, on the amount of resource that a country can mobilise for the development of its educational system and the demographic and economic context.

The opening of the ‘World Declaration on Education for All’ pointed explicitly to this interrelationship between educational policy on the one hand and economic and demographic development on the other. In particular, the document cited the failure to fulfil the universal right to education asserted in the 1948 Universal Declaration of Human Rights in a broader context including, among others, the problems of economic stagnation and decline, population growth and economic disparities among and within nations: “These problems constrain efforts to meet basic learning needs, while the lack of basic education among a significant proportion of the population, prevents societies from addressing such problems with strength and purpose” (World Declaration on Education for All, Preamble, 1990). The inadequate supply of educational
opportunities is shown to be both a consequence and a cause of demographic and socio-economic problems.

More than a decade has passed since the Jomtien declaration. What progress has been accomplished towards the goal of education for all, against the backdrop of current financial and demographic factors? Is it possible to quantify the demographic pressure on public policy, and particularly on education? How did public policy directed towards the targets of universal access to primary education, elimination of the gender gap and increasing net primary school enrolment ratio work against the obstacles posed demographic growth? Which policies have been most successful and what can countries learn from the experience of other countries?

Specific goals, derived from the ultimate objective to achieve education for all, included: "universal access to and completion of primary education (or the level of education considered as 'basic') by the year 2000"; and "reduction of the adult illiteracy rate (the appropriate age group to be determined in each country) to one-half its 1990 level by the year 2000, with sufficient emphasis on female literacy to significantly reduce the current disparity between male and female literacy rates."

These goals were further specified at the International Conference on Population and Development (ICPD, Cairo 1994). There, it was agreed that governments and civil society, with the assistance of the international community, should meet the goals of ensuring universal access to primary education as quickly as possible and in any case before 2015; close the gender gap in primary
and secondary education by 2005, making special efforts to keep girls and adolescents in school by building more community schools, training teachers to be more gender sensitive, providing scholarships and other incentives and by sensitizing parents to the value of educating children and particularly girls; and strive to ensure that by 2010 the net primary school enrolment ratio for children of both sexes will be at least 90 per cent, compared with an estimated 85 per cent by the year 2000.

To examine the progress made and the challenges faced in the implementation of these goals, the analysis starts with a global perspective and then focuses on the less developed regions where the demographic transition is still progress and education for all represents an important challenge. Changes in enrolment ratios, literacy rates, gender disparity, public investment in education, as well as shortages in educational provision and inadequate conditions of learning, were considered against the backdrop of demographic changes. Regional figures, however, hide considerable variations within regions and even within countries, making important differences in policies. In order to highlight these variations, the situation of individual countries is presented for some specific issues.

1.1 Concept and need of the Primary Education:

Competition is at the core of the success or failure of organizations. Competition is the driving force that makes organizations adopt strategies for keeping afloat or succeeding. Hence, what competitive strategies they adopt assume significance. The strategies they adopt have to be sustainable to give
competitive advantage, a term coined by Michael Porter. Competition is created on account of rapid changes taking place in all walks of life. Globalization is at the heart of such changes. Changes in domestic economic structures and in international trade pattern are also among the important generators of new learning needs for workers, management personnel, engineers, and others. Over the years, such changes have taken place at a fast pace and more recently, at a rapid pace. As per the World Development Report 2003, in the section on Sustainable Development in Dynamic World: Transforming Institutions, Growth and Quality of Life, states that "institutions need to be improved at many levels – from the local to the global – to promote growth in ways that protect environmental and social assets".

In this regard, developing human resources of India has to be its top priority. Human Resources Development relates to education, training and utilization of human potential for social and economic development of the country. According to UNDP, there are five 'energisers' of Human Resource Development; Political and Economic Freedom. Development of human resources is not very easy in developing countries that are reeling under the pressure of population explosion. According to the World Development Report of 2001, population growth and projections that have been given is quite alarming. For India, population projection for 2000 A.D. is 1007 million; china 1294; etc., which is a massive growth.

Regarding the population in 0-14 years, for India, by 2025, it is predicted to be 24.1 million; In order to cope with the increased enrolments, there has been
a consequent mushrooming of schools. Financial resources for service sectors like education and health have also been quite low in the developing countries. The overall proportion of public expenditure spent by countries on primary education amounted to less than 1.7% of GNP in 1998 as per the World Development Report. Only one tenth of the countries spend more than 3.6%

Scarce financial resources coupled with poor human resources have made the goal of attainment of universalisation of elementary education a difficult one to achieve. The other problem relates to lack of sound management training for the functionaries resulting in a poorly managed education system. A combination of such factors have resulted in students prematurely dropping out without completing even the first cohort of primary education, resulting in wastage of scarce resources. These aspects are also identified by Lockheed and Verspoor (1990); UN Guidelines for Action in Support of Education For All in the ESCAP Education and Training in the 1990s: Developing Countries’ Needs and Strategies—UNDP Policy Paper (1989), etc.

1.2 Elementary Education: Global Scenario:

Over the decades the developing nations of the world have been striving to provide education to all children in the relevant age group. Despite notable efforts by various countries to ensure the right to education for all children, the following realities persist:

- More than 113 million children, of whom nearly 60% are girls, are not in school.
• More than 880 million adults are illiterate.

• Most of the adults in the developing countries have no access to the printed knowledge, new skills and technologies that could improve the quality of their lives and help to shape and adapt to social and cultural changes.

• Many children and country's adults fail to complete basic education programmes, and many more satisfy the attendance requirements but do not acquire essential knowledge and skills.

• Teacher-Pupil Ratio is over 1:50 in large number of countries.

At the same time, the country faces daunting problems like mounting debt burdens, the threat of economic stagnation and decline, rapid population growth, widening economic disparities among and within nations, violent crime, etc. These problems constrain efforts to meet basic learning while lack of basic education among a significant proportion of the population prevents societies from addressing such problems with strength and purpose.

These problems have led to major setbacks in basic education in many of the developing countries. Yet, they are striving hard to attain the goal of education for all. Only this can ensure a healthier, more educated populace who can make for a more prosperous world, while simultaneously contributing to social, economic and cultural progress. Education certainly helps to improve the quality of life of people.

Let me now examine what we mean by basic learning needs:
• These needs comprise both essential learning tools such as literacy, oral expression, numeracy and problem-solving, but it also includes basic learning content such as knowledge, skills, values and attitudes required by individuals to develop to their full potential, to participate fully in development and to improve the quality of their life.

• The satisfaction of such needs empowers individuals to promote the education of others, to further the cause of social justice, ensuring that human rights are upheld and to work for international peace and solidarity in an interdependent world.

• Basic education is more than an end by itself. It is a foundation for lifelong learning and human development on which countries may build further levels and types of education and training.

Basic Education aims at three target groups. Children up to 14 years of age who are in the formal schools, those children who have dropped out prematurely without completing the primary education or those who do not attend the school at all and the adult illiterates. According to the Constitution of India, education is a fundamental right and provides for free and compulsory education for all children in the age group of 6-14 years. This constitutes the formal school system. Alternate Schooling system is available for those children who drop out of school without even completing the primary education cycle. For the illiterate adults, in the age group of 15-35 years, the literacy programme is in place. It is available in three phases namely, Total Literacy Campaign, Post Literacy and Continuing Education. The problem of providing access to the growing school-
age population is a formidable task. The statistics provided elsewhere, corroborates this fact. To provide infrastructure facility to the existing schools itself is not an easy task considering the financial resources of the country. Once access is provided, the next problem is with regard to retention of the children in the schools with limited infrastructure facilities, insufficient number of teachers in schools with limited infrastructure facilities, insufficient number of teacher in schools and lack of awareness of the part of parents for the need for education. This problem is even more in the case of children coming from disadvantaged groups and poor socio-economic background.

There are several studies to show that education is the crucial single factor which enables individuals to adopt appropriate healthcare practices, sanitation, hygiene, nutrition, appropriate technology, etc., which enhances the quality of life and economic productivity of not only the individuals but also the country at large. It brings down infant mortality rate, makes for adoption of family planning practices, etc. Providing basic education to girls is crucial. All gender stereotyping in education for all is no mean target considering the fact that we have working children, nomads and migrant workers, people belonging to various castes, tribes, the disabled, etc.

1.3 Education For All: Implications:

To meet the goal of basic education for all, there is a need to have short-term, intermediate and long-term goals and targets. Appropriate means to monitor and evaluate the achievement of goals and targets must be designed. The time frame within which each goal has to be actually achieved should also
be specified. Time-bound targets convey a sense of urgency and serve as reference points against which indices of implementation and accomplishment can be compared. The plans should be flexible enough to be changed or modified.

Performance targets vary from country to country. Meeting basic learning needs also involved action to enhance the family and community environment for learning and to correlate basic education and the larger socio-economic contexts. The complimentary and synergistic effects of relative human resources, investment in education, health and nutrition should be recognised.

The most urgent need is to provide access and create a climate for the retention of girls in schools and to remove all obstacles that hamper their participation.

Formulating an appropriate policy framework at the central and state levels is for the attainment of goals. Without political will, translating theory into practice would be extremely difficult. There is an urgent need for developing a multi-sectoral plan of action so that sectors interact in a mutually supportive and beneficial manner. The development strategies should form a part of the country's goals. Developing awareness among the public for the need for basic education is equally important. The policy makers and others should be trained in management techniques to improve the efficiency and effectiveness of the system. The policy for providing basic education, presupposes of an educational system of quality, equity and efficiency. The curricula also need to be updated from time to time so as to make it relevant and vibrant. Hence, the system is
under constant pressure to be responsive to the present day demands. There is no scope for complacency anymore. It is a question of survival of the best organization in terms of its deliverables. This is where quality of management assumes importance.

Experienced planned and managers know that there is no single correct way to manage all activities and organizations. The best management strategy is one that produces the best result under any given context and that, which enables managers to anticipate and adjust to change. Managers of service systems cannot successfully use the age-old management strategies to introduce new service or new ways of providing services. They will necessarily have to use appropriate management processes and organizational structures.

Poor quality of management of schools is often attributed to inadequacies in managerial functioning resulting in overall even completing the primary education cycle. For the illiterate adults, in the age group of 15-35 years, the literacy programme is in place. It is available in three phases namely, Total Literacy Campaign, Post Literacy and Continuing Education. The problem of providing access to the growing school-age population is a formidable task. The statistics provided elsewhere, corroborates this fact. To provide infrastructure facility to the existing schools itself is not an easy task considering the financial resources of the country. Once access is provided, the next problem is with regard to retention of the children in the schools with limited infrastructure facilities, insufficient number of teachers in schools with limited infrastructure facilities, insufficient number of teacher in schools and lack of awareness of the
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There has been increasing realization in service sectors such as education and health, of the need for customer-centricism, as against the existing welfaristic approach of imparting education, in order to provide quality services. Emphasis on customer and customer satisfaction is gaining ground rapidly and is widely accepted as the key to achieve excellence. In this context, there is a need for the providers of education, namely, educational administrators and teachers, to understand and to practice the concept of Total Quality Management that would empower them to address the problems and issues in a holistic manner and achieve synergy. This would help reduce or avoid duplication of tasks, improper use and wastage of resources, and a host of other inherent weaknesses.

India is committed to Universalisation of Elementary Education (UEE) which entails providing access to education for all children in the age group of 6-11 years; improving enrolment and retention, reducing dropout rates and enhancing achievement levels of students, especially girls and other disadvantaged groups. Accomplishment of these enshrined goals in a vast diverse country like India is a daunting task. Disparities are evident while considering variables like gender, socio-economic, rural-urban and other disadvantages. These require thoughtfully worked out innovative strategies that are group-specific, locally relevant and visible in the socio-economic and cultural contexts.

This is essential, as several researches have shown that returns on primary education are huge as it leads to better quality of life. It helps to improve
the efficiency and productivity of workers and increases wage earnings. It enables educated parents to realise the need for education and they are more likely to send their children to school. The overall challenge for India is to sustain and deepen current reforms in elementary education. This would entail developing strategies for expanding and improving elementary education. This requires robust planning and a decentralised management model which has to be contextual and cost effective.

In India, elementary education is a concurrent responsibility of the Central and State Governments. The National Policy on Education enunciates provision of equality of educational opportunity for all and the more recent constitutional provision provides a Right to Elementary Education. Approaches to educational change need to be worked out on a priority basis. It is of relevance to relate experts from the Report of the Parliamentary Standing Committee on Human Resource Development presented to both Houses of the Parliament on 24.11.1987:

1. "......In India, Universalisation of Elementary Education (UEE) has been recognised as a crucial input for nation building since independence. The founding fathers of our Constitution had given a prominent place to educational endeavours when they made a provision for free and compulsory education for children up to 14 years of age within a period of 10 years in the Directive principles of State Policy. However, this goal has proved elusive so far. The inability to achieve this goal 36 years after the target date has been a cause for
serious concern within the country and outside. The failure to achieve UEE had resulted in a number of interrelated problems like population explosion, unemployment and disease, one of the largest adult illiterate populations in the world; and lack of adequate skilled manpower to achieve the economic goals.

2. According to the Department of Education, the proposal to amend the Constitution to make the right to free education, a fundamental Right and provision of opportunities for education for children up to 14 years of age a fundamental duty of the citizens of India, is expected to provide the desired momentum to the efforts being made in the country to achieve UEE by 2000 A.D. It is expected to stimulate Central and State Governments to meet the special needs of under-served and unserved populations and regions.

3. The thrust of Universalisation of Elementary Education (UEE) has been on Universal access, universal participation, universal retention and universal achievement. There are several gender, regional, sectional and caste disparities in providing elementary education. Even after 50 years of Independence, a very large segment of children of school-going age still remain out of school. It is a tragic stage of affairs that only two-third of those who join school, complete primary schooling and only half complete upper primary schooling. A significant proportion of children drop-out from school before completing their studies due to socio-economic and cultural factors. Lack of basic
amenities, shortage and absenteeism of teachers, non-availability of teaching learning materials are equally responsible for the ever increasing drop-out problem. Not only this, studies have revealed low achievement levels in primary school even in States which are considered educationally advanced.

The Department in the written note state that the Supreme Court in its judgement in Unni Krishnan J.P. Vs. Andhra Pradesh, 1993, had held that children of this country have a Fundamental Right to free education until they complete the age of 14 years. According to the Supreme Court, this right flows from Article 21 relating to protection of life and personal liberty and its contents and parameters have to be determined in the life of Article 41 which provides for right to work, to education and to public assistance in certain cases and Article 4 which provides for free and compulsory education to children up to the age of 14 years. The apex court has observed that the obligation created by these Articles of the Constitution can be discharged by the State either by establishing institution of its Problem.

1.4 Educational Media:

It has been argued that in order to reach large numbers of students distributed very widely, distance education may become the preferred mode for delivering education of satisfactory quality. In basic education, the application of electronic media like radio and TV has been limited owing to financial constraints and programming capacity. Little or no access to such media in the vast rural areas has also been a deterrent in this regard. When there is no electricity or the
deliver education in the classroom. Radio seems to have gone out of fashion with little innovative work being done for classroom teaching using radio, though it is being used for development information dissemination quite extensively.

Even so, over the last 15 years there has been a consolidation of efforts made earlier to provide radio and TV support to primary schools. Efforts have been made to supply the hardware to primary schools and community TV sets have continued to be installed through the Panchayat bodies. Maintenance has remained a problem and consequently the educational programmes produced by CIET and SIETs have been classified as enrichment material to give children a broader vision than what is available in the ordinary primary schools. However, a variety of locally available and inexpensive materials have been used by teachers in an imaginative manner to make learning more interesting. Collectively known as the 'play way' method, these teaching aids like charts, games, kits and activities have made the classroom transaction more fun and interesting. The spread is slow and many schools are still deprived of these items supplied under the Operation Blackboard (OB) scheme or other projects.

In order to make an assessment of the status of educational media in this country, it may be useful to focus on a few case studies and research findings. First, we look at the survey findings on the impact of ETV on primary school children. This is followed by two case studies of current experimental project using electronic media and satellite broadcasting for literacy and teacher training. The Jhabua literacy through TV project is an ambitious project in one district of Madhya Pradesh where a daily special transmission of literacy support lessons
was recently conducted as an experiment to assess the viability of the technology and application systems in the context of rural isolation and socio-economic deprivation. The second case study is from the Karnataka DPEP’s experience of using a set of films in an integrated training package for training a large number of primary school teachers as a prelude to the overall of the curriculum and classroom management. Here also, satellite based interactive TV has been used to reach large numbers. Both case studies throw up many questions on the planning and management of such complex projects. Finally, the question of an Educational TV channel is examined since an Educational TV Channel (Gyan Darshan) has been launched on 26 January 2000 and is an idea that holds promise or the future of educational expansion in this country.

1.5 Education Technology for Primary School Children:

To strengthen the technology support in schools, Education technology Cell, DSERT, Bangalore undertakes various academic activities through the effective utilization of technology and media – radio, TV, computers, audio and video cassettes, CDs, Resource books, etc., The direct broadcast of TV lessons under the Edusat project is also undertaken through the Education Technology Cell.

Computer Education and Computer based education has been taken up in 1000 government secondary schools from March 2001, as a five year scheme under the “Mahiti Sindhu” Programme, which is an ambitious and successful project of the department. Computer Education and Computer based education has also been introduced in 150 government secondary schools under the
Revised Class Project and 88 government secondary schools under the Eleventh finance Commission Project from 2003 – 04.

The Education Technology Cell in collaboration with Sarva Shiksha Abhiyan and Azim Premji Foundation has started computer education in selected government Higher Primary Schools of the state. In 2001-02 Azim Premji Foundation has started computer education on its own in 35 higher primary schools. In 2002-2003 in collaboration with DSERT, the computer education programme was extended to 55 selected Higher primary schools and in 2003-2004, the programme was further extended to 135 Higher schools in the state.

1.6 Publication of Resource Books:

Geography resource book (Bhoogola Sangathi Vol. I) in Kannada and English was prepared, printed and supplied to all the secondary schools during 2002-2003 to provide additional resource material to teachers in teaching of geography. Bhoogola Sangathi Volumes II and III in Kannada and English were brought out in 2003-04 and distributed to the schools.

Teachers' resource materials were prepared in Geography – (in English and Kannada) for secondary classes and also in science, mathematics and English for primary classes.

1.7 Audio/Video Cassettes:

Audio cassettes have been developed and distributed to schools to help children improve listening and speaking skills. Audio cassettes in English have
been developed by Regional Institute of English, Bangalore. Audio cassettes have also been developed for standard III and IV children of Urdu schools.

Several Video cassettes have been produced to help explain difficult concepts in science and other disciplines. These video cassettes are given to 224 science centres, established throughout the state.

A 30 minute video film "Shikshana Sopana" was prepared containing the Education Minister’s discussions with educationists, parents, teachers on topics of educational interest.

1.8 Radio Programmes:

"Keli-Kali" radio programmes are being beamed from 10 stations of All India Radio to all the primary schools in the state, for standards III, IV, V and VI in Kannada, Urdu, English, Environmental Sciences and Mathematics. Under “Bandhani” programme, radio lessons are being broadcast for students and teachers of primary and secondary classes (VI, VII and VIII standards) from Monday to Thursday between 2.30-3.00 P.M. This programme covers the hard sports in the subject areas. "Shikshana Samvada" a phone in programme is being aired every month from AIR, in which the Education Minister and senior officials of the department answer queries raised by the public regarding educational matters.

1.9 Teleconferencing:

The Cell also conducts Teleconferencing from SIRD, Mysore. The Education Department has also contributed Rs.30 lakhs towards establishment
of studio facilities at SIRD, Mysore. (Earlier the state faculty had to conduct teleconferencing from Ahmedabad). The Receiving stations are located in 20 DIETs, some CTEs and BRCs. This facility is being used in interacting with field functionaries, dissemination of information relating to important departmental programmes and also in training of master resource persons and teachers.

1.10 National Scenario of Educational Television Programmes-Innovations – UGC – CWCR Project:

The potentiality of the Television medium was harnessed by UGC which commenced countrywide classroom (CWCR) project on August 15-1984 and hence, there by brought video inputs to the distant classrooms. These programmes were developed by seven Educational Media Research Centres (EMRCs) and seven Audio-Visual Research Centres (AVRVs). The programmes were of collaborative efforts of teachers, producers and research and researchers and hence were worked out to meet the needs of syllabus.

The CWCR programmes seek to fully exploit the potential medium.

i) **Immediacy**, for bringing to viewers to exciting new findings;

ii) **Omnipresence**, for taking the views to “Where the action is” – a research laboratory, hospital, a village or a conference;

iii) **Animations and special effects** to help-clarify concepts, highlight inherent structure or invisible process, etc.

iv) **Visual power**, for a vast variety of things, including demonstrations of all types; and
v) *Intimacy,* to involve the viewers and make them a part of voyage of discovery, of the wonders and of enquiry.

The target group for these programmes included undergraduate college students, university students and teachers and also a segment of non-student population.

1.11 IGNOU Radio and Television Programmes:

IGNOU strived not only to extend the programmes to higher education but, also to reach more remote corners of the country with effect from May 20, 1991. IGNOU takes care of production and post-production work. These programmes are not only made available to stakeholders through study centres. But for all those who are interested to get it in the form of recorded cassettes.

The programmes of action 1986 (pp 181-183) in implementing the NPE, 1986, intrinsically favoured the use of broadcast method with their inherent advantages of greater reach, convenience of management and cost-effectiveness over the non-broadcast methods largely oriented to individual learning. The radio and television programmes should be used for distance learning and enrichment of curricula in the formal system. Further, large scale use of audio and video cassette programmes can immensely contribute to supplement the endeavours of educational broadcasting. Autonomy and accountability of the electronic media are closely associated with expansion of radio and television programmes in the country which has been extended by Prasar Bharati (Broadcasting Corporation of India) Bill passed by Parliament in 1989.
1.12 Development of Educational Broadcasting in India (Radio):

Education is not limited to the class room teaching only. It has been broad-based and multidimensional. It is life long, universal, free and open. Hence, there is a need for arrangement of mechanism through which education can be imparted to masses and radio is one such medium. It not only informs, but also inspires the audience. It inculcates values, develops virtues and encourages imagination. Therefore, radio has been used as a potential medium for helping in realization of educational objectives most efficiently. Being an inexpensive medium it has reached village and is now available in every nock and corner of the society. Radio is, at present, not only one of the popular mass media, but also a potential instructional tool in the formal, informal and non-formal examination.

Educational Broadcasting from AIR dates book to 1932. These broadcasts are being aired in more than 16 languages. Among these main producers of English language programme is Central Institute of English and Foreign Language (CIEFL) is collaboration with AIR.

The educational broadcasts for primary for Secondary schools (E.g. Keli-Kali Radio broadcast) are mostly syllabus based. Non-Syllabus programmes are however, broadcast in order to break away from stereo typed formal education, for doing away with monotony in the curricula Topics and also to stimulate awareness and curiosity about the modern world dealing with themes ranging from popular Science to current affairs. These programmes are also being broadcast for tertiary level. AIR also broadcasts programmes for non-formal
education centres for drop-out children adult illiterates. Programmes for farmers are broadcast under Farm School programmes. AIR also organises programmes for teachers, teacher educators, officers and community. The Minister of Education GoK participates in these programmes called Shikshana Samvad. NCERT at the national level and SCERTs at the state levels have taken-up various types of programmes.

1.12.1 Administrative and Advisory Infrastructure:

AIR has a core team consisting of a producer, a scriptwriter and a production assistant with general assistants to help. They work in collaboration with state education department for production of programmes. Further state departments take active interest in educational broadcasting- provision of radio sets, planning programmes, producing and distributing teachers’ handbook, training of teachers in the use of media and scriptwriting. Further, AIR and ET Cells of SCERTs organises seminars and workshops for enrichment of teachers.

1.12.2 Evaluation and Feedback:

AIR obtains feedback by various means like though personal visits of producers to schools or examining number of letters received. Audience research cell does departmental survey. M.Ed., Ph.D., students also take up serious research on these programmes.

1.12.3 Problems and Prospects:

Educational chunks are very less and very less time is available for broadcast of programmes. Most of the schools do not have radio sets. The
broadcast timings do not suit the school hours and hence, have become ineffective. The programmes are heard only once and these are not recorded and hence, repeated hearing is not possible. Radio medium is losing its glamour because of advent now media like TV, VCD, Computer, etc., Radio programming and utilisation is set to become an integral part of the teacher training programme. The officers and administration are yet to realise the educational potential of the media. For successful implementation of these programme adequate co-operation and co-ordination among the producers, uses teachers, educationists, evaluators and planners is a must.

1.13 Development of Educational Broadcasting in India:

The American author, James S Kinder (1959), has aptly remarked, "Television has latterly captured the country. Its expansion has been much more systematic than that of radio or automobile. It has become an important part of one way of life, so much so that it is difficult to say whether it is a luxury or a necessity. This is very true in case of our country whether we talk of rural or urban areas."

In India Initially the television programmes started with General Conference of UNESCO (1959). Television sets were installed in community centres. Later on television entered into the class room in 1960. The SITE programme was launched in 1975 and the programmes were related to Education, Agriculture, Health, Family, Planning, National Integration and Soon. After the SITE, the Government of India decided to extend Television viewing facility by increasing terrestrial transmitters in the SITE states. By 1984 Delhi
Doordarshan Kendra alone was telecasting 16 programmes per week in various curricular and co-curricular subjects.

1.14 Preparation for INSAT Utilisation:

Government of India has strived for linear expansion of education. The plan has, however, admitted that the linear expansion cannot be achieved by the existing system. Because, even if the resources were available, which were not, schools cannot be built fast enough, teachers could not be prepared within the five year time frame and school equipment and books produced and provided to meet the additional requirement of 18 million pupils. Hence, ministry of education Gol (1981) thought of making use of INSAT facility.

SAC (ISRC) helped in planning and utilisation of television programmes through INSAT. National workshop organised in 1979 highlighted following changes.

1. Recognition of educational broadcasting’s new priority role to move away from syllabus – oriented approaches into non-formal systems and lesser dependence on intermediaries.

2. Stressing team mode of production, making planning and production of educational broadcasts a collaborative effort of the producer, educators and social scientists.

3. Calling for an integration of educational broadcasting within the total educational system and for the purpose recommending autonomy to the centre for educational technology at the national level and creating
autonomous State Institute of Educational Technology at the state levels which will be necessary professional and technical structures for educational and technical structure for educational broadcasting.

4. Laying more emphasis on research and evaluation as an essential component of educational broadcasting at all stages of planning, production and utilisation.

5. Evolving a national framework, spelling out the priorities, broad areas, themes and objectives of the programmes.

6. Entrusting the responsibility of planning, production and use of educational broadcasting to the educational authority.

7. Urging immediate action on all fronts to prepare for the utilisation of the television facility under INSAT.

INSAT IA, INSAT IB, INSAT IC were launched one after another which helped in experimentation of various programme. Gradually the duration of transmission was increased and programmes were transmitted in morning and afternoon too. Doordarshan’s most sophisticated Central Production Centre (CPC) at New Delhi was inaugurated which had well-equipped, telecast hi-tech machines for quality production.

The ETV programmes were produced and broadcast initially in few states like Kashmir and Maharashtra. Later on UGC started ETV programmes for university students. Then CIET of NCERT, ET cells of SIETs took up planning.
and production of programmes. Few programmes prepared by CIET in Hindi were dubbed into regional language and telecast in the different states.

For higher education, the ETV programmes are produced at the different media centre, namely, educational media research centre (EMRCs) located at Ahmedabad, Hyderabad, MCRC located at Jamia Millia Islamia, New Delhi, Audio Visual Research Centre (AVRCs) located at Calcutta, Hyderabad, Jodhpur, Madhyai, Machas, Roorkey, Sunagae, Patiala, Imphal, Indore and so on. A Mass Communication Bureau has also been functioning at the UGC, New Delhi and ETV production facilities have also been developed in the Technical Teacher Training Institute (TTTIs) located at different cities of India.

Radio and television broadcast were main sources of audio-video programmes. Audic medium is effective and inexpensive. It has occupied significant place in teaching and communication. It not only informs, but also inspires. It not only inculcates values and virtues but also creates attitudes, interest and appreciation. Audio educational programmes have, therefore immense partialities. Particularly in developing countries like India, where constraints of finance, efficient teachers, suitable equipment and appliances adversely affect educational planning administration, audio programmes play a significant part in expansion as well as qualitative improvement of education. India is still having some inaccessible areas where expansion of education has faced difficulties. To a large number of socially disadvantaged children, education is not meaningful and interesting. There has been a growing awareness about the inadequacy of the traditional or formal system of education not only for
expansion but, also for improving the standards of education. Hence, the role of
recorded programme in inexpensive media like audio-cassette -players is
gradually felt imperative.

Audio programme have a number of inherent limitation. It is a medium
dependent on sound only. It demands a habit of constant listening which is not
ordinarily available with many. Audio programmes may be a developed on
lessons, but can not develop a lesson with the audience like a teacher. However,
unlike radio broadcast these lessons can be controlled and interfered to suit
special needs and interest of any group.

In audio programmes there is no scope for interpersonal contacts and
interaction between the artist (here audio teacher) and the audience. So, the
elements of motivation and inspiration are usually lacking in the some
programme. The audience can not see the performer nor the performer see the
audience.

Hence, these limitations can be overcome in the following way

1. Sound has to be supplemented by visual like posters, slides etc.

2. The absence of visual can be slightly overcome by making use of
variety and reality in music and sound effect.

3. Listeners / Students interest and curiosity has to be sustained by a
proper script. It should have emotional appeal and power to stimulate
imagination.
Video programmes try hard to overcome shortfalls of its audio counter part. Some of the advantages of this medium taken from James W. Brown and other (1964) are;

i) It is a Convenient and economical.

ii) It combines best elements of audio in the with the potency of motion pictures.

iii) It is capable of helping to overcome learning barriers

Video as a versatile, dynamic and powerful medium has immense capabilities of influencing education. It is a new medium of communication, not a new method of teaching. Its effective use is based on the same fundamental psychological principles which apply to all successful persons of learning. The proper use of video provides new incentives for students to assume more responsibility for learning. It is also a fact that effective video-based training demands more preparation and assistance of more specialised personnel than does conventional instrument. Video is not a self-contained educational entity, but an instrument which is significant only in the particular educational situation in which it is employed.

The special significance of educational video lies in the fact that it can use all other audio-visual materials. Franklin Dunham, Chief of Educational Radio-Television in USA, office of communication medium, television is unique in its ability to bring many other aids into the classroom. Every audio and visual help we have even known can be carried by television, motion pictures, filmstrip,
slides, recording, drawings, maps and countless other instructional devices.” (1952).

Through, video programmes current events and past events can be brought into the classroom. This is a versatile medium. The wonders of the world, natural or man-made, can be brought into the classroom. This medium can be suitable to different age groups and varied subjects including topics in art, science, literature, geography, history, music, dance etc.,

Video programmes facilities training of teachers as the student-teacher or any other classroom teacher, observers good teachers in action and imitates various aspects of teaching and teaching skills.

1.15 An Educational TV Channel – Its Relevance and Feasibility:

Ever since the Indian Space Research Organisation made satellite transponders available for communication in 1984 and Doordarshan went beyond terrestrial expansion into creating DD 1, DD 2, DD 3, Regional and International Channels there has been talk of an Educational TV Channel for the country. The Ministry of Human Resource Development announced it formally in 1994. From then on, wards the Ministry of Information and Broadcasting and the Ministry of Human Resource Development (MHRD) had been planning on it and came close to start it, Albeit Hastily, in 1997 called it “the Freedom Channel”. Finally, Gyan Darshan (an educational TV Channel) has been launched on 26 January 2000 with a daily transmission of 16 hours. Nevertheless, some ticklish questions remain. Should it be considered the feasibility of a satellite channel presently available only through cable operators with a reach of about 50-60
million in metros and major towns? Or should it be reckoned that the needs of education should be met by the satellite as well as the terrestrial system by deploying the best delivery system for the education of 400 million people (which is the present reach of Doordarshans)?

India's population of over 950 million consists right from the illiterate, neo-literate, educated to the highly educated. The 1996 UNDP Report on Human Development points out that there are more than 500 million capability of poor people in India. The literacy figures ranges from 100% in Kerala to 43% in Bihar. Even the most educated and professionals need to keep pace with the exponential arena. Children, youth, women, and adults all fall into the ambit of Educational Broadcasting with a need for a wide variety of programmes so far not produced. Obviously the needs would vary from simple fun and games related to language, culture, maths, science on TV to structured courses on technical, professional or vocational areas or just a 'window to the world' type of continuing education.

Where is this need in India? Largely, it is in the middle and lower middle class of our TV population residing more in smaller towns where exposure to good libraries and competent teachers is limited and which may not have access either to VCR or cable at home. This viewership is mainly confined to the terrestrial system of DD 1 and DD 2.

Existing channels of Doordarshan, the transmitters and viewership information taken from Doordarshan 1996 compiled by its Audience Research Unit shows that while DD 1 viewership was 270 million and DD 2 101 million, the
Regional Channels had viewership ranging from 14 to 30 million. The TV exposure was 74% in urban and 31% in rural areas. Only DD was watched by 55% in urban and 29% in rural areas indicating that in rural India, almost all watched DD and a very large percent, (23% out of 31%) watched DD 1. As far as cable and satellite was concerned 19% watched in urban and only 3% in rural parts of the country. In other words, the reach of the ETV Channel (Gyan Darshan) would eliminate not only the entire small town and rural audience but also a major proportion of the urban viewers who do not have cable connection. Even with cable connections they would be entirely at the mercy of cable operators.

The access of TV sets through schools and colleges have failed time and again except for the lone experimental one-year period of SiTE in 1975-76.

Even the attempt by Uttar Pradesh (UP) to give the maintenance to government undertaking did not make any difference in the schools of UP. The TV sets provided by the government in the schools of Bihar, Orissa, Gujarat, Maharashtra and Andhra Pradesh remain grossly under-utilised for want of electricity, mismatch of school and telecast hours, teachers’ apathy of their maintenance. Neither has the grants for TV sets and VCRs from UGC to Universities and Colleges resulted in their being used for educational viewing. Hence, the assumptions of viewing should be entirely based on home TV sets, black and white or colour but not on institutional viewing. The planning of telecast has to be done accordingly.
In the various sectors of School, Technical and Higher Education production facilities have been acquired. Some of these Institutes are: UGC and CEC with 17 Media Centres in Universities, IGNOU, CIET and 6 SIETs, Five IITs and 4 TTIs, DECU and National Open School. Analysis of these organizations reveal that there are a large number of programmes in stock of good and repeatable programmes come to about 4100 hours and the average annual capacity for production comes to about 370 programme hours per year.

For a channel to create a presence and get established, it is essential that it operates at least for 18 hours every day and has the necessary quantity and quality of programmes. It is assumed that on an average each programme is shown about 4 times a year. Such repeats are essential to cater for all section of society. Therefore, the Channel requirement of programmes would be 1642.50 hours/years. It is possible to meet this requirement from the existing stock of programmes and additional programmes produced every year. Of course, the quality in terms of content and production values would have to be greatly enhanced if the channel has to become popular. The Education Channel would require enormous amount of Promo material to be prepared in advance to be a part of all Channels of DD. This investment would be necessary to establish the ETV Channel which may take almost a year if at all, in the limited viewership zone of cable system. It may also require in some cases (children, youth and professionals) outstanding foreign programmes to be acquired, and dubbed in Hindi (being done by Discovery Channel). The cost of multiple telecast rights of foreign produced programmes and dubbing works out to be less than the
indigenous productions. About ten percent of foreign programmes with high production values and those which are culturally more neutral, would not only enhance the Channel value but also provide a useful exposure of ETV quality to the Indian producers. Many of the existing materials may also have to be revised to update them. One of the major reasons of average quality of educational programming in India has to do with the availability of money and by bureaucratic controls on it. While millions are spent on equipment, building and salaries, very little money is available for in-house productions. This aspect would need professionalism and liberalisation. We would also need continuously training of manpower as mobility of people is extremely high in television.

The total budget for five years to operate an Education Channel comes to about Rs. 2000 million which would include training, production, import of foreign programmes, dubbing, promo, capsizing and unlinking. It has not been very clear in past discussions as to the source of funding such a channel. It would be a safe assumption that revenues from advertising could only be expected from the second or the third year. Optimistically, the channel could become self supporting perhaps after five years or more. But then this brings in a host of questions, which relate to the management of the Controls are inter-related. Furthermore, who will bear the cost of expansion of the terrestrial system of the Education Channel for its wider reach which will require an additional one time investment of about Rs. 150000 million?

Gyan Darsan should be seen as an opportunity and it should not be done without planning the expansion of its terrestrial system (1000 High Power
Transmitters - HPTs and Low Power Transmitter - LPTs to cover the entire country) in parallel to the development of quality software and setting up of its management system. The Satellite Channel for Education by itself would not reach the various audiences that require programmes in regional languages. While entertainment is acceptable to large audiences in Hindi, education will need the use of regional languages. Hence, a separate terrestrial network for ETV would be necessary. It should be seen as a new challenge and investment to create a learning society and capacity building with far-reaching implications.

1.16 Impact of Educational Telecasts – A Study among Rural Primary Schools:

In 1984-85, under the scheme ‘INSAT for Education’ educational television and audio production facilities were created by setting up the Central Institute of Educational Technology (CIET) in NCERT. Under this, educational telecasts were produced for children in rural primary schools and for teacher education. Colour television sets and radio-cum-cassette players (RCCPs) were provided to rural schools on a subsidised basis.

In order to assess the impact of educational telecasts on rural primary school students and teachers and to formulate strategies for the future, CIET commissioned Social and Rural Research Institute (SRI) to conduct a study. The research objectives were (i) to assess the impact of the educational telecasts on primary school children in terms of their language development, comprehension of visual representation and general awareness about the environment; and (ii) to understand teachers’ attitudes and perceptions and ascertain factors that
promoted or hampered utilization of the facilities. Both quantitative and qualitative research techniques were used. Children were tested for language skills, environmental awareness, visual representation and curiosity using tests specially designed for them. Teachers were interviewed using partially structured questionnaires. In addition, in some schools observation studies and focus group discussions were carried out among children who were shown in television programmes and questioned on them.

From a list of 40 schools of each type (experimental and control) in each of the three selected states for the study (Andhra Pradesh, Orissa and Uttar Pradesh), 20 schools of each type were selected for each state using systematic random sampling methods. Experimental schools were those schools that had received a television set under the ETV scheme and where children were supposed to watch the educational telecasts. Control schools were those which did not have this facility.

However, in the course of actual fieldwork, it was found that in 17 out of the 60 experimental schools children did not watch the telecasts, though all but one school had a TV set. Thus, though fieldwork was conducted in experimental and control schools as pre-selected, they were subsequently divided into three categories for data analysis, viz.:

- Experimental schools where children watched the telecasts.
- Experimental schools where children did not watch the telecasts.
- Control schools
The study was conducted in the states of Orissa, Andhra Pradesh and Uttar Pradesh. A total of 1200 students from Class II and IV across experiment and control schools were to have been interviewed and tested per state, resulting in a sample of 3600 students. In effect, 2942 students and 213 teachers were interviewed.

The findings of the study clearly showed a direct relationship between viewing of educational telecasts and significantly better performance by children on issues such as curiosity, language skills, and visual representation. Interest in the educational telecasts varied between the three states. The children from Andhra Pradesh expressed a high level of approval of and interest in these programmes (90 per cent). By comparison, only 58 per cent of Orissa children said that the programmes were interesting while 35% said they were not interesting. In Uttar Pradesh, while 32 per cent voted the programmes as being not interesting, 53% were unable to answer. Thus, in Uttar Pradesh, 85 per cent did not say that the programmes were interesting. 95% of Andhra Pradesh children who watched educational telecasts said that they looked forward to the educational telecasts. 60% of the Orissa children answered in the affirmative while only 10% of Uttar Pradesh children expressed enthusiasm.

The more positive attitude of Andhra Pradesh teachers was indicated in their use of teaching aids, their initiative in making teaching aids, their understanding of the potentially powerful role that educational telecasts could play in the learning process and their willingness to use this tool to advantage. 75 per cent the teachers from Andhra Pradesh confirmed that the school helped them by
permitting them to view the educational telecasts. The attitude of teachers from Orissa did not come through with as much strength but their use of teaching aids, their overall positive responses and children’s scores indicated some good work by Orissa teachers. Qualitative case-studies showed that schools in Orissa laid high emphasis on course completion and teachers believed they could not spare the time for discussions on the case of Andhra Pradesh. The attitude of Uttar Pradesh teachers came through as being most indifferent. This attitude can be seen in their non-use of telecasts in teaching, their limited use of teaching aids, their inability to say if the programmes were congruous with the syllabus or not (23 per cent unable to answer compared to 4 per cent each from Andhra Pradesh and Orissa) and their comments during case-studies that they did not discuss telecasts with children since they had a syllabus to cover. None of the teachers from Uttar Pradesh mentioned that the schools permitted them to view telecasts so that they could make use of them in the teaching process.

This study indicated that success of educational telecasts depended on two factors:

- A good viewing experience which would depend on the quality of the programmes which should be such that children enjoy them and look forward to see them. Implicit in this is the quality of support services such as electricity and TV sets with a good reception, all of which could add to the viewing experience.

- A fertile school atmosphere which encourages learning, discussion, questions and innovations.
The study also revealed a host of problems that need to be addressed if educational telecasts are to play a meaningful role in the classroom. Television sets need to be properly maintained. Lack of electricity was another problem. The telecast timings are often unpredictable as Doordarshan disrupts educational telecasts, without prior notice, when sports events or other live coverage takes precedence. Teachers also do not have advance information on the day's telecasts and their media materials to enhance the learning experience of the children. There is also scope for improvement in the programme quality of the educational telecasts.

1.17 Other Initiatives:

The Bio-diversity register programme for creating awareness in students about bio diversity and environment was taken up in collaboration with Karnataka Pollution Control Board, Indian Institute of Science and Bharatiya Gnyana Vignana Samithi.

1.18 Gender sensitization programmes are being conducted by the cell, for officers of the department, teachers and also staff of training institutions. Each CTE is being given annually Rs. 40,000 for conducting these programmes.

1.19 Accelerated Literacy through Television:

The Indian Space Research Organisation programme is oriented to a practical application of space technology with the aim of promoting national development. The use of satellite television broadcasting for beaming educational and instructional programmes to rural India as communication
support to developmental activities has been on the national agenda for over 25 years. Over this period, India has established an operational domestic satellite system – INSAT, providing three basic kinds of services: communications, broadcasting and meteorology.

The Indian Space Research Organisation's (ISRO) concern for developing applications to support education and development is reflected in its efforts to undertake joint project with user agencies. SIET (1975-76) was one such major project undertaken jointly with the Ministry of Information and Broadcasting to develop national capabilities of satellite broadcasting and its applications. This lead to widespread development of satellite broadcasting as well as its use for educational and development purposes by UGC, NCERT, IGNOU and various other department and ministries.

While there has been a very significant growth in the television coverage of the country, the access to TV in rural areas is extremely limited. Of the 52 million TV sets in the country about 34 million are in the urban areas. Therefore, 18 million TV sets are distributed in about 95 million households in rural areas. To reach out to the disadvantaged sections of the rural society, community-viewing facilities need to be established. Based on the experience of satellite broadcasting to rural areas (SITE) and interactive training (TDCC), the Jhabua Development Communications Project (JDCP) configuration was evolved by ISRO.

Since November 1996, Development and Educational Communication Unit (DECU) of ISRO, Ahmecabad has been executing the JDCP. 150 Direct
Reception Sets (DRS) were installed and a regular transmission of development related programmes has been going on in the areas of health, agriculture, watershed management, panchayat raj, education and general information and entertainment. The interactive training programme (ITP), is also major component of JDCP in which a one way video and two way audio teleconferencing network is utilised to provide interactive training to block and village level functionaries. Satellite based talk-back terminals have been provided to all the 12 blocks in Jhabua district for ITP. The project is implemented with the support of the Madhya Pradesh Government and Jhabua district authorities. Apart from the internal staff of ISRO, a host of external producers and research organizations have been involved in the project and regular feedback and other research and evaluation studies are being carried out. Originally a two-year project, it was extended till October 1999 and the area of coverage is being expanded with DRS soon being installed in all 612 panchayats of the district. In fact, Jhabua will become the first district in the country with a community TV in all panchayat.

The National Literacy Mission (NLM) has been set up in 1998 as one of the original five technology missions' to tackle the major problems of the country. Application of technology and scientific research was a cornerstone of these missions. In Jhabua, a Total Literacy Campaign (TLC) was launched in 1995 targeting 340, 674 non-literate persons of whom 157, 984 were male and 182, 690 were female. The TLC went through all the stages and by the end of the campaign in October 1997, 152,393 persons (less than half the number targeted)
had become neo-literate or semi-literate achieving a fragile level of literacy that required reinforcement through a sustained post-literacy (PL) and continuing education (CE) programme. Otherwise, there was a likely danger of relapse into illiteracy. In Jhabua, there was a long delay in starting the PL programme and only towards the end of 1998 were the funds available for starting such a PL programme.

While numerous attempts have been made to promote literacy through television, no systematic effort has been made to teach literacy through television. National Literacy Mission (NLM) had produced a television series called Chauraha that was telecast but these were unsupported with preparation of the learners groups and training of the volunteer instructors. In the context of the TLC in Jhabua and the opportunity provided by JDCP, DECU initiated the planning process of a special project using television to accelerate the acquisition of literacy. A meeting of experts was held in DECU in March 1998 to consider the feasibility of such a project and define the contours of such a project. Subsequently, a team from DECU visited Jhabua in December 1998 to assess the response of the District authorities and other agencies concerned with literacy towards the adult literacy through television project. Since the post-literacy (PL) programme had just been approved for Jhabua, there was keen interest to revive the literacy effort and television seemed to be the right ‘booster’ input to enthuse volunteers and learners. It was felt that about six months of preparation time would be necessary to prepare the ground and also produce the
special literacy programmes on TV that would supplement the learning process at the literacy centres.

The next important step in the planning process was a workshop held in ISRO, Ahmedabad to work out the details of the adult literacy through TV project and assign roles and responsibilities to the different agencies involved in it. The key objectives of the workshop were to define the syllabus and on that basis design the media package in terms of the number, content and format of the programmes; to describe the administrative setup for implementing the literacy project in Jhabua and identify other organizations from which support would be needed for the project; and, to define the broad outline of research and evaluation to be adopted for the project.

The experimental nature of the project was recognised and the practical difficulties in ensuring motivation of adult learners were also accepted. Television's role in creating an enthusiasm for literacy through motivational programmes and publicity to the literacy through television project was emphasised. Sufficient preparation on the ground would have to be made so that learners gather at the venue to watch the TV programmes and the literacy instructors are trained and prepared to utilise the TV lessons to the maximum benefits. It was felt that linking with other successful development programmes in Jhabua, like the watershed development programme or the savings and credit groups would help the literacy effort to become sustainable. At the end of the workshop an action plan for the Adult
Literacy through TV project in Jhabua emerged with the following features and activity schedule:

- TV programme transmission with special literacy programmes from June – October 1999 for four months (16 weeks);
- 60 programmes with literacy content (5-6 programmes each covering 12 identified development concerns);
- 20 additional programmes for awareness building and preparation;
- Programme briefs to be read by DECU after consultations with ZSS, Jhabua and SRC by 15 March and one-day meeting with all producers by the end of March 1999;
- Meeting with Collector and other district authorities, state-level representatives scheduled for the second week of March to chalk out implementation, training including ITP planning, field support and identifying resource persons and groups;
- Comprehensive project proposal with activity schedule to be finalised after meeting in Jhabua in the second week of March;

In the meeting in Jhabua soon after that, it became clear that a large number of persons who had not been enlisted during the TLC would have to be inducted into the present phase of the literacy campaign. The district authorities were therefore keen to use the existing basic literacy primers to begin with, rather than the specially designed primer for the TV literacy project, as suggested in the February workshop. Since the implementation of the project had to be done by
the ZSS, it was important to take their view into consideration. However, it meant that the software for the literacy project would not be an integrated whole as recommended in the February workshop. It has been envisaged that a specifically designed ‘bridge’ primer would be prepared with 12 lessons covering the different development areas of primary importance in Jhabua. The TV lessons would reinforce and illustrate the lessons in the primer spreading over 60 programmes averaging 5 programmes for each primer lesson.

In the one-day meeting with the producers on 1 April 1999 this problem more apparent as producers struggled with a variety of formats, character continuity and narrative flow between programmes. The lessons of the existing primers were not written as a continuous narrative but rather as texts to illustrate usage of letters as they got introduced. Producers also had to content with the difficulty of doing a limited number of programmes each. Evolving some common elements for all programmes, using music, dance and humour, balancing the information content with literacy instruction, and finishing the entire production load within a few months was a daunting task for the production team.

It was subsequently decided that a set of 100 programmes would be produced in all. 20 programmes to be produced initially for awareness building on literacy and the project itself. 60 programmes based on the three primers would be produced by external (to DECU) producers and would address the neo-literate directly. Finally, a set of 20 programmes was to be produced on post-literacy. These television programmes, though based on the literacy primers,
would only serve as support material for the volunteers teaching the identified set of adult learners.

As per the schedule, telecast of the awareness programmes on the literacy through TV project was begun in June. A meeting with the district authorities was held on 19 June 1999 to review the status of identification of learners and volunteers, distributions of the existing primers in stock and printing of additional primers and distributing them. Finalizing the date of commencement of telecast of literacy lessons on TV and completion of a baseline survey prior or that. The district authorities admitted that there were difficulties in motivating the tribals to come forward and participate in the literacy programme. They were also not interested in the health and other development programmes. Seasonal migration was very high and after October it would be difficult to continue any programmes. Co-ordination with other departments was essential for the success of the programme. However, most of the preparation was done and the telecast could be started soon.

Since a pre-survey had to be done in order to assess the literacy gain later, it was necessary to have a complete list of volunteers and adult learners to make a selection from the 150 locations. The list was overdue from the district authorities and it was expected by 28 June 1999. Since the pre-survey would take two weeks, it was agreed that the telecast of the programmes would commence from 19 July 1999. In the meanwhile, a training programme for the volunteers through a face to face training programme was designed to be provided by SRC along with two resource persons from each of the 12 blocks (24 persons).
Simultaneously training in two locations was conducted between 13-15 July to ensure that all volunteers were acquainted with the particularities of the project and familiar with adult literacy teaching methods.

It was envisaged that adult literacy class would be between 6.00pm—7.00pm according to the following schedule:

- 6.00pm – 6.30pm face to face teaching by the volunteer.
- 6.30pm – 6.50pm telecast of literacy programme on adult literacy
- 6.50pm – 7.00pm recapitulation and reinforcement of the TV lesson.

It was further agreed that only the second part of the programme and the test lessons would be repeated. It was assumed that the learners would have got the hang of the lessons and the learning will be faster. There would also be no telecast of lessons on Saturdays and Sundays.

The training programme of the 150 volunteers who were Gurujis (non-formal education teachers) under the Educational Guarantee Scheme (EGS) of the Madhya Pradesh Government were completed on schedule but, they were unsure about their availability at the adult literacy centres in view of training and other activities under the DPEP programme. An observation made by the trainees was that the special transmission timing (6pm-7pm) was inconvenient for the learners, as they would not return from the fields till evening, that is, after 7pm. It was explained that the main JDCP transmission started at 7.15pm and that could not be disturbed. The trainees were urged to persuade the learners to
attend the classes at 6pm. Also, the trainees were requested to verify the lists of learners provided by ZSS to DECU and confirm their availability.

In view of the complexity of the task, it is apparent that DECU attempted to make adequate preparation. However, it is also clear that the State Government or the District authorities did not have a sense of ownership of the complex nature of the implementation tasks. The technology and the systems management concerns also took priority over the confidence building exercise with the community. A project that is crucially dependent on the voluntary participation of the people cannot expect an outside intervention to succeed without the willing cooperation of the people. It is not surprising therefore that the feedback team of the researchers, who visited Jhabua after the literacy special transmission had started, found the TV set not switched on in several locations and numbers of adult learners far below the expected number. Since the final evaluation report of this project is being completed it is not possible to comment on the outcome of the project. But some of the lessons are clear. A top-down, technology and management driven project with no direct benefit perceived by the viewers is not likely to succeed. Involving the people and the grassroots functionaries in the planning process from the beginning is very necessary.

1.20 Karnataka DPEP Film-based Teacher Training Module:

The District Primary Education Programme (DPEP) has been the major new initiative to achieve Universalisation of Elementary Education (UEE) in India. It was launched in seven states in the first phase in 1993. The new strategy was
to operationalise district level planning taking a holistic view of primary education and laying great emphasis on participatory planning and management. DPEP has a marked gender focus and seeks to enhance school effectiveness through inputs in teacher training and decentralised management. Karnataka was one of the states where DPEP was launched in the first phase.

One of the key concerns of DPEP is school effectiveness through pedagogic renewal and decentralised and better management involving parents and the local community. It is recognised that the teacher plays a critical role in both areas and therefore in-service training of teachers has been a thrust area in DPEP. In Karnataka, the first teachers’ training module was developed in 1995 and the Block Resource Centre (BRC) faculty was trained on the module as the BRC faculty was trained on the module since the BRC faculty had to conduct the training with the teachers. Subsequently, a massive teachers’ training programme was conducted in the DPEP districts. Feedback from the teachers after the training and later brainstorming lead to a long process of revision of the training module.

Teachers found the training module too theoretical with little connection with the reality on the ground. In a single or two-teacher school it is difficult to do continuous evaluation, as is the requirement of minimum levels of learning (MLL) assessment. How does a single teacher handle a multi-grade teaching situation which is often the case? Supervision by departmental staff who did not understand the MLL concept was not helpful as they could not provide guidance to the teachers. During the brainstorming, the basic issue of what is to be done in
the training and why and how were addressed. It was admitted that there was
inadequate experience of the activity-based teaching and participatory training
methodologies among trainers and teachers. It was therefore necessary to gain
first-hand experience of child-centred, activity-based learning.

Subsequently, a series of workshops were held to experience and learn
about activity-based teaching. This led to a better understanding of participatory
training as different from conventional training; developing techniques for
replacing lectures with activity-based experiences and mutual learning through
non-hierarchical and informal means. BRC faculty members (trainer teachers)
who participated in these workshops were then attached to schools for tryout of
activity-based methods.

As an outcome of the series of workshops and the school attachment
programme, the teachers’ training package was revised thoroughly, giving a new
vision of the activity-based classroom; inquiring into assumptions about children
and the nature of learning; and, defining the concept of an activity with extensive
notes on methods and materials and the role of the teacher in an activity-based
classroom. Several approach papers on language, mathematics, environmental
studies (EVS), gender equally MLL and evaluation were also prepared for the
teachers.

The revised teachers’ training programme for DPEP in Karnataka
developed a set of training materials for teachers and trainers and an activity
bank. Regular supplementary materials were provided through the Kali-Nali wall
newspapers distributed to every primary school in the DPEP districts. A large –
scale training programme was undertaken to cover 31,664 teachers from DPEP, Phase-I districts and 28,178 teachers in DPEP Phase-II districts. With the commencement of the teachers' training as per the revised design, production of a series of seven films was initiated to supplement the training programme.

The films were based on the premise that existing data on achievement at primary levels in the schools call for an urgent re-examination of the problems and issues relating to enrolment, access and participation of children in learning. Such an examination cannot be meaningful without entering into a dialogue with the three principal actors in primary education, namely children, teachers and community members. This process initiated by DPEP Karnataka in 1996 resulted in the development of a series of films entitled 'Before we begin the lesson...'.

The films were made in a participatory mode through workshops spread over a year with children, teachers and VEC members. In the workshops and environment was created, so that participants could critique and debate the existing system with frankness, and analyse and re-define their roles within the educational system. For example, teachers examined the extent of their participation and autonomy in curriculum formulation, designing teaching learning material, creation of a teaching methodology and developing evaluation techniques. Similarly, community members discussed the values inherent in the school system, and how these have alienated children from the rural environment. These films raise and illustrate issues through a mixture of documentary footage and dramatised scenes performed by experienced theatre activists. Special attention is given to present examples which reflect the real
experience of the intended audience – teachers, educational administrators and VEC member. At no time do the films lapse into 'expert' lectures.

Simultaneously, the DSERT, Bangalore initiated the production of two films documenting the experience of a new child-centred pedagogy in HD Kote block of Mysore district with support from UNICEF. The HD Kote experiment is based on the experience of the Rishi Valley 'school in a bag' approach. Under DPEP, the Kote experiment has been up-scaled to six additional blocks. The two films documenting the HD Kote experience have also been included in the training design. Thus, the nine films in the series are:

1. **Whose school is it anyway?** (The focus of this film is on reason for children not accessing or dropping out of school – seen from the perspective of the community, children and teachers. There are interviews with SC families, interviews with girls involved in cattle grazing as a full time chore, discussions with members of a VEC, and workshop discussions with teachers.)

2. **Play and learn.** (The film looks at reasons for children achieving poorly, despite access and participation in school – mostly from the viewpoint of teaching methodologies and poor unattractive learning environments. The film proceeds to build upon the concept of child-centred, activity based teaching learning and shows how teachers, once they acquire an understanding of the concept of ‘activity’, can create their own activities which can be used as various levels of multi-grade teaching.)
3. *Syllabus, Syllabus!* (The film begins with a sequence of children struggling through texts totally unrelated to their own lives. There is a discussion with teachers where they highlight the need for local specific curriculum which is meaningful to the lives and environment of rural children and the participation of teachers in curriculum creating and textbook development. This film introduces the idea of respecting the native knowledge of children, and building on it, rather than making them ashamed of native systems through a play entitled “Tiger, tiger, where are your teeth”.)

4. *Joy of learning.* (The film documents the Nali Kali UNICEF supported project. It focuses on principles of classroom teaching and management processes, which makes it possible for teachers to handle children at different levels of learning, and for children to enjoy learning. The film highlights how teachers can collectively exercise the responsibility of formulating a curriculum, designing teaching learning materials, creating teaching methodology, conducting and reinforcing activities, and setting in place an ongoing, continuous evaluation system with creative and sense of ‘ownership’.)

5. *Sha, sha, sha is correct.* (The several issues covered in this film are (i) why and how language is learnt by children followed by a discussion among teachers on whether children should be permitted to articulate comfortably or made conscious of purity of language; (ii) when and how should writing skill development be introduced in school; (iii) the
experience of the HD Kote project is documented to show how teachers break down learning into the smallest units easily manageable by the child. (iv) finally, the film deals with the issue of fantasy in language learning through a folktale.)

6. Add, subtract, (The film looks at the importance of Maths in real life and teachers discuss why Maths is regarded as a threatening subject. The common perception that girls are not good in Maths is dispelled by teachers who argue that absence from school owing to attending to other chores often is the cause for girls not being able to keep up with Maths. How to manage the load of the Maths curriculum is demonstrated through the HD Kote project experience where teacher successfully break down Maths learning into small units and used real objects to teach children.)

7. Let us Build Together (The film focuses on the upscaling of the UNICED sponsored experimental HD Kote project to six addition blocks in Mysore district under DPEP. The difficulties faced by the teachers of the new schools to adapt themselves to act as ‘facilitators’ rather than ‘dictators’ and their optimism in this regard is shown. Every six months teachers and resource persons meet together to revise the curriculum, activities and learning materials. There is a new confidence in the district. Resource Persons and teachers have created new songs, stories and activities.)
8.  *May I know your caste?* (The film shows VEC members discussing the existing caste and class problems which are largely responsible for non-enrolment and drop-out of SC/ST children, particularly girls. The film also presents the view of VEC members that school timings and holidays exclude children from poor households. Schools are run when parents definitely need assistance from their children in the fields and holidays occur when no real help is needed. The film includes a play on gender and caste discrimination and ends with women expressing the need and importance of educating girls.)

9.  *This is our school.* (The film is a tale of two villages- Hospet and Malkapur. The film documents the micro-planning process in these two villages. While the relationship between teachers and the community is harmonious in Malkapur, it is positively hostile in Hospet. In the war between the community and the teachers, what will be the fate of the school? What will happen to the children? A variety of issues are touched upon and the film ends with a play depicting the helplessness of a teacher in a situation where the school premises are misused by the people of the village.)

These nine films are being used in the training of teachers, and will be seen over a period of time by 70,000-75,000 teachers in Karnataka. The objective of using this particular format for the films is to provoke teachers to speak out, and they begin their own pedagogic inquiry. The training design incorporated the screening of the films to be followed
by discussions among the trainees and with resource persons. As part of the countrywide DPEP effort to use satellite communication for teacher training, the Karnataka DPEP designed its interactive teachers' training programme. The first interactive satellite based training programme for teacher was held in July 1999. The nine films developed by DPEP and DSERT were used in the training programme. The training programme had two components: (a) direct face to face training at the DTIs conducted by identified resource persons, and (b) through a programme transmitted through satellite from a studio set up in Bangalore. The two components were intermixed with each other, and all districts under the DPEP followed a uniform timing for the activities conducted at the district level.

About 35-40 teachers attended the three-day training programme at each of the 12 centres where viewing and talk-back facility had been set up. On an average there were over 50 questions in each session showing the kind of interest that had been generated among the teachers. Many questions were on the caste and gender issues highlighted in the films. There was a lively discussion on language spoken at home and the language used in the textbooks. The HD Kote approach was found stimulating but appeared unreal as the teachers were unable to relate it to their situation. When it was pointed out that the administrative staff had been supportive in HD Kote, the need to change the power relations between administrative supervisory staff
and teachers was emphasised. A suggestion came from the teachers that teachers collectively should be formed at the cluster (CRC) level so that teachers have a voice in academic matters and school management. The resource persons were able to answer the questions adequately but the programme was a little rushed as the training schedule was cut short at the last-minute owing to unavailability of satellite time in the evening.

The technical quality was satisfactory and the team felt happy at having successfully conducted the interactive satellite based training. Experiences varied from district to district but generally everybody felt that the effort was worthwhile and the teachers left with a feeling of hope. However, the careful planning required ensuring that such a programme is successful and that resource persons are available makes the whole exercise very elaborate. Karnataka DPEP would continue its original schedule of training using the films in a non-broadcast mode and only using resource persons available at the training site. Even though a more sophisticated technology could be available, the ground management issues are fairly complex and technology fails to deliver if the whole systems management fails as has been the experience of several projects. Karnataka DPEP’s decision to use films as an effective tool in training, coupled with its keenness to ensure that the transaction with the teachers during
training is satisfactory and therefore preferring the TV/VCR route, shows a sensible awareness of ground realities.

1.21 Need for the Study:

The Primary Education is considered to be the foundation of Educational Strata of every individual, on which future achievements are entirely depending. But, if we look into the status of primary education we feel very sad about the organization and educational process of primary education. The school buildings are unattractive. Necessary Physical and Material equipment are not adequate. The human resource which is nothing but the teacher input which is not upto the satisfaction.

If we peep into the Primary School classes of today we feel sorry for the following reasons.

- Over crowded classes.
- Single teacher schools,
- No proper light and ventilation,
- No proper teaching materials,
- Lack of resources,
- Irregular attendance.
- Drop out of girls is very high,
- Traditional Method of teaching of teachers,
- Wrong System of Evaluation,
- No in-service Teacher training programme,
- Lack of Media use in Primary Education Classes.
Government of India with the help of World Bank started a Project known as DPEP to improve upon the quality of primary education. This project was launched in such state / districts where the literacy rate was well below the national literacy rate. The states like U.P, M.P., Orissa, Karnataka etc. were included in the first phase and some other states were included during the second phase. The objectives of the DPEP were not only to improve the quality of education but to provide secular, scientific, social education to all eligible children. Hence, the DPEP has utilised modern media approach in its different programmes including Distance Education Programme. Following were the innovative inputs of DPEP.

1. Rewriting the text books with activity oriented exercises,
2. Use of radio broadcasting – teaching through radio lessons,
3. Use of tape recorders,
4. Educational Television Programmes
6. Gender Equity.
7. Teleconference

Even after implementing above modern inputs the primary education did not get any improvement. Hence, the term was modified into Sarva Shikshana Abhiyana (SSA), wherein the main objectives were to utilised modern media into primary education.

The Keli-Kali radio programme is one of the pioneer innovative practices in which, the investigator was directly a part of preparation of the modules for radio
broadcasting. No doubt, Keli-Kali radio programme designed in an objective way and broadcast throughout AIR with systematic timings and organization. The children enjoyed the radio lessons and learnt little better than the traditional method. But, only audio media did not attract the children to learn very effectively. This was noticed by the investigator who was working as the Distance Education Co-ordinator for the state of Karnataka. He collected the opinions of the children, teacher, Head Master, parents, Resource Persons (CRPs, BRPs), Officials, that there should be audio-video programme to teach/learn which may create more interest among the children and serve as powerful tool for the teachers. Hence, the investigator made up his mind to construct and validate an audio-video package named it as “Nodi-Keli-Kali” AV package for teaching learning EVS of I I and IV standard children.

1.22 Statement of the Problem:

"DEVELOPMENT AND VALIDATION OF AUDIO-VISUAL PACKAGE TO TEACH ENVIRONMENTAL SCIENCE FOR III, IV STD. STUDENTS OF ELEMENTARY SCHOOLS OF KARNATAKA STATE."

The present study is a pioneer study in which the investigator wanted to find out a new technique in teaching and learning Environmental Studies (EVS) in primary schools. It is well known fact that, small children studying in elementary education (I to IV) are highly attracted towards the animated motion pictures. The Keli-Kali Radio programme no doubt became most popular but it has its own limitation and weakness. Even though Keli-Kali programme covers entire Karnataka but, the children have to listen passively. Moreover, the
programme cost and the broadcasting time are not matching with the listener. Hence, the investigator noticed all such limitations wanted to evolve and develop a new technique through which all sense organs of the children are involved in teaching learning process. Hence, he wanted to develop an audio-visual package such as Video/Disc to teach the environmental studies for the III and IV standard children. Thereby he is also intending to know the effectiveness of Audio-Visual packages over traditional teaching and Keli-Kali Radio programme for (EVS).

1.23 Objectives of the Study:

1. To study the new interventions in the field of Primary Education.

2. To study the curriculum of primary education concerning to III and IV Standard (EVS).

3. To study the present strategies and methods of teaching EVS in primary schools.

4. To know the effectiveness of Keli-Kali Radio programme of teaching EVS to the Primary School Children.

5. To know the present traditional system of teaching of EVS and its weakness / drawbacks in primary schools.

6. To evolve new strategies / technique of teaching EVS in Primary Schools like AV package.

8. To compare the effectiveness of three techniques of teaching EVS mainly, traditional teaching, Keli-Kali technique and using AV package technique of teaching.

9. To know the relative effect on the achievement of the students belonging to different Socio Economic and Educational Status for three different treatments.

10. To know the relative effect of achievement of Boys and Girls towards three types of treatment.

11. To know the relative effect of teaching of the EVS with three techniques for the teachers who teaches EVS.

1.24 Terms Defined:

1.24.1 Traditional Teaching:

The usual teaching method adopted by a teacher in the class-room without using much teaching aids and other modern techniques. Most of the time he / she uses text books gives importance for textual matters and adopts lecture methods without allowing children to participating in the discussion (No interaction).

1.24.2 Keli-Kali Technique:

This is one of the important and pioneer technique developed by DEP-DPEP, IGNOU, New Delhi and DPEP Karnataka, Bangalore which is carried forward by DSERT, Bangalore. The EVS portion of III and IV standard have been divided into meaningful parts and converted into a Radio broadcast scripts by the
expert committee appointed by Education Department of Karnataka State. Whole programme on EVS III and IV standard has been divided into 30 minutes programme in which a teacher along with his students develops the lessons with discussions, question answers examples and encourage songs and music. This has created lot of interest amongst the teachers and children of III and IV standard. Every day at particular time there will be broadcast for which a pre planned broadcast time table has been sent to each school. Every school should put on the Radio set to listen and react for such programme. After, each programme there will be activity home work given to the listener, which will be asked and clarified next day programme. Keli-Kali radio programme is more popular in rural area than in urban areas. Number of evaluative work on effectiveness of Keli-Kali programme have been undertaken by many investigators and found out that it is more effective and the students have significantly achieved more than the traditional method.

1.24.3 Nodi-Keli-Kali - Audio Visual Package

This is the main theme of present study, based on the principle of involvement of almost all sense organs in teaching learning process. The limitations of Keli-Kali programme has been over come with present package. Children not only listen but observe, feel and react actively in such teaching techniques. Here also the EVS unit has been divided into meaningful parts an Audio-Visual out put is fed in where in children observes the events with visual effects along with Audio out put.