REPORT
OF THE
CORE GROUP
ON
OPEN EDUCATION

PLANNING COMMISSION

GOVERNMENT OF INDIA

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INTRODUCTION

Background

A Core Group on Open Education to review and recommend appropriate measures for development of Open Education during the 8th Plan was set up by the Planning Commission on 6th December, 1991, under the Chairmanship of Dr. (Mrs.) Chitra Naik, Member, Planning Commission. A gist of the Office Order setting out the composition and terms of reference of the Core Group may be seen at Annexure I.

The Core Group held an informal meeting of Delhi based Members on 4th December,1991. Its first full meeting was held at Pune on 13th December.1991 and the final meeting on 2nd January.1992 in Delhi when it concluded its deliberations. The Core Group had the advantage of consultation with a few selected experts who were called on 2nd January,1992 as special invitees. The Report of the Core Group was finalised shortly thereafter, for presentation to the Deputy Chairman, Planning Commission.

The Open Learning system in India has been evolving gradually over the past few decades. But the urgent needs of India's changing socio-economic scene as witnessed at present call for greater attention to openness and flexibility in the educational system. The

relevance of OLS has been clearly brought out in the key-paragraph No.3.11 of NPE, 1986. At the present juncture, OLS derives a special significance from the observations of the Prime Minister and of the Deputy Chairman, Planning Commission at the National Development Council Meeting held on 23 - 24, December, 1991. The directional paper for the 8th Plan makes the future thrust of education quite perceptible. As the framework of the Report is derived from these observations, they are quoted below :

NPE-1986

"3.11 Life-long Education is a cherished goal of the educational process. This presupposes universal literacy. Opportunities will be provided to the youth, housewives, agricultural and industrial workers and professionals to continue the education of their choice, at the pace suited to them. The future thrust will be in the direction of open and distance learning."

Extract from PM's Speech

"Our foremost objective today is to generate adequate employment. This is the pre-condition for eradication of poverty. But this will be possible only when the young men and women in the age of employment are imparted the skills and competence which make them employable. In other words, educational pyramid should be so planned that within the 8th Plan every child is ensured schooling upto levels where employability is

acquired. The base of pyramid, i.e. the elementary should be fully covered while the middle and higher levels are enabled to impart technical and managerial levels commensurate with market requirements, ensuring in the process a full array of competences for self-employment to serve the expanding needs of the society. Illiteracy should be eradicated in the next five years in the age group 15 to 35 years."

Extract from Dy.Chairman's Speech:

"At the senior school level, we have to widen our reach providing an open channel of education to those who do not have access to regular institutions because of socio-economic and locational constraints and those who have already entered the world of work but are keen to improve their skills and income generating capacity. In addition to conventional institutions, we will also concentrate upon the setting up of Open Schools during the 8th Plan."

Design of Report

The design of the Report is as follows :

We first deal with the concept of Open Learning so as to impart requisite clarity to the subsequent discussion. After glancing at the global perspective, we trace the Indian antecedents beginning with the recommendations of the Indian Education Commission (1964-66) which are relevant even to-day. Thereafter, the rationale for Open Learning is discussed with reference to its clientele, various programmes,

organisational factors and financial matters. Our basic recommendations emerge from these discussions.

The Report has five Annexures. In the first three, apart from indicating the composition of the Core Group and its Terms of Reference, we have given the gist of points made by experts as also recommendations relating to Open Learning culled out in NPE, 1986 and 8th Plan Working Groups. Some case-studies of training schemes are attached as Annexure IV. An outline of a project which could be taken up in a backward State (Manipur) is given in Annexure V.

I

CONCEPT OF OPEN LEARNING

1.01 There has been a terminological evolution in this field beginning from 'correspondence education' through 'distance education' to 'open learning'. The openness refers to the dimensions of prior educational qualifications, place of learning, accessibility, choice of subjects, diversity in instructional designs, flexibility in delivery mechanism and in the pace of learning allowed to the learners. In operational terms, the essence of open learning lies in its being imparted and received in a non-institutional setting; making use of multi-media packages of distance education like print material, audio and video cassettes, radio and TV programmes, etc.; and supplementing this packaged programme by contact programmes. In the case of vocational courses requiring skill development, some training-practice facilities in work place are to be made available for hands-on experience.

OLS and Non-Formal Education

1.02 Open Learning, in common with non-formal education, emphasises flexibility and learner-centredness. However, if non-formal education does not make use of distance education methods, it cannot be termed open learning.

OLS and Distance Education

1.03 OLS makes use of distance education methods. However, all distance education is not necessarily open in the sense that the courses it offers are open to all types of applicants. Thus, professional programmes of continuing education, being limited to accredited members of a particular profession, are not categorized as open education.

OLS and Correspondence Education System

1.04 Correspondence education, though a form of distance education, cannot be called an open system since it is entirely governed by rules and regulations covering institutional courses, in such matters as curriculum, scheme of studies, admission criteria, and so on. The Open System is distinct from the rigidly formal institutional system, in respect of curriculum, instructional packages and evaluation methods.

II

PERSPECTIVES ON OPEN EDUCATION

2.01 Open or distance education programmes have been operational for over 250 years, mainly in Europe and North America, in the form of 'correspondence education' for adults wishing to secure diplomas, degrees or just skills and information of their special interest. Early in the 20th Century, universalization of primary education in remote geographical areas was carried out by Australia, Canada and New Zealand, through postal tuition. Later, correspondence education began to cover secondary, higher, and some branches of professional education. The use of radio and television for learning-support brought in the term 'distance education'. But the establishment of the United Kingdom Open University (UKOU) in 1969, gave a new direction to this field. Along with print-materials, it introduced audio and video materials and a system of personal guidance through contact centres for learners and their counsellors. The thrust of the Open University towards equality of educational opportunity for the 'forgotton millions' such as workers and housewives received appreciation. Soon after, many a 'correspondence' course got converted firstly into 'distance education' and then into 'Open Education' using the new style of postal tuition supported by personal contact and multi-media packages of learning materials.

2.02 Despite a fairly wide expansion of the school system, the number of out-of-school children and youth is still very large and adult illiteracy also is a nagging problem particularly in developing countries. The full-time institutional system of education takes in only those who do not work and who can afford the price it demands. For those who work and contribute to the economy, for those who have little time to spare for full-time education, alternative paths of entry into education must be opened up in the interest of equity as well as socio-economic development. This is the rationale of the Open Learning System.

2.03 A well-designed open learning system which satisfies the dual demand of educational quality and quantity, creates a network of educational opportunities relevant to the needs and circumstances of the learners and their society, can be a major means for accelerating the pace of development in an age dominated by market forces and by technology as the prime input for securing a better standard of living for all. In our country, the chief concern at present is to wipe out adult illiteracy as fast as possible, improve enrolment, retention and achievement at the elementary and secondary stages, and offer vocational courses and further education of various types interlinked with employment possibilities. In such a situation, we need to profit by global experience by culling out from it

the factors which suit our needs and combining them imaginatively with our own formulations. Appropriate open education can help build among our people the attitude of self-reliance and self-confidence which are basic to good performance in the work-place as well as in the side spectrum of socio-cultural activities which characterize a progressive society. The time has obviously come to take Open Education seriously and organize it systematically for moving speedily towards education and employment for all.

III

EVOLUTION OF OPEN EDUCATION: THE INDIAN SCENE

3.01 Education and Development: As pointed out by the Education Commission (1964-66), in its Report significantly entitled Education and Development, education being the main stimulator of development, does not end with schooling and that it has to be a life-long process in order to enable the individual to understand the rapidly changing world of work and the growing complexities of human affairs. The Commission, however, noted that in India masses of people are without schooling, even without effective literacy, numeracy and understanding of changing technology. Besides, many of those who have had the opportunity for schooling, partly or fully, have found their conventional courses irrelevant to developmental needs. A solid foundation for life-long learning provided through literacy, numeracy and 'techniracy'* could lead the learners towards capabilities for independent learning and earning. This should be the trend, according to the Commission, in universalisation of elementary education, adult education and further education. From this angle, the Commission indicated that the school would have to reach out to the entire local community and function as a 'Community Learning Centre', a 'people's school'. To

*'Techniracy' is a term coined by Dr.M.S.Swaminathan.

fulfil such a role, it would go beyond educating children, disseminate to the community all essential information, and promote vocational education along with social service for integrating the total community into a dynamic unit of development. We need to proceed towards this vision of the Commission, in a planned manner, in relation to the 'area development planning' strategy of the 8th Plan, through selection of schools having the right ethos and infrastructure, supported by the Education Complex visualized by the Commission.

A system of continuing education could be designed by making such schools serve as 'contact centres' to cater to the needs of different groups of learners, namely, those who are able to study part-time and those who are necessarily required to study at home at hours convenient to them, through an Open Learning System. Provision of a variety of continuation courses and teaching-learning arrangements was recommended by the Commission through the school system as well as institutions like the Krishi Vidyan Kendras and Community Polytechnics catering to the needs of productive skill-development in the rural areas. Such 'open-door' facilities, outside the regular working hours, are expected to provide flexible, work-related learning oportunities. These could as well form constituent parts of the Education Complex give the

lead in organising ad-hoc short courses for youth, adults and even school-pupils. It may be necessary to give further consideration to such vocational centres in order to form an integrated Education Complex serving the goal of 'Education and Development.'

3.02 The Education Commission, stressing its developmental view, had looked upon the education system as a flexible and dynamic process, responding to the inter-dependant needs of the learners and their society. A substantial expansion of 'part-time' and 'own-time' courses, at all levels of education, covering academic and vocational as well as cultural studies, could be so planned as to bring within their fold a sizeable proportion of students at the secondary and higher education levels. The National Policy on Education has adopted or adapted many such forward-looking recommendations of the Education Commission.

3.03 Many of the recommendations of the Education Commission were filled with insight into the development processes and the kind of manpower required to be produced by education for making India a dynamic, forward-looking, economically productive and socially progressive nation. Some of these recommendations were so much ahead of their times that they were not even understood and, consequently, overlooked. This is not surprising. The conflict between convention and innovation is an age-old phenomenon.

3.04 Open Education in Universities: The conventional attraction for degrees and diplomas and the desire of many a secondary certificate holder to acquire further qualifications while in employment or working for employment led to the demand and provision of 'external' degree courses. Correspondence courses followed, as an improvement. The University Grants Commission formulated guidelines for correspondence courses in Indian Universities. A few Universities relaxed formal qualifications for entrants to correspondence courses. By 1989-90, correspondence courses in various disciplines had been instituted by 38 Universities, at the undergraduate, post-graduate and diploma/certificate levels.

3.05 The first Open University in the country was established in Andhra Pradesh in 1982, followed by the establishment of the Indira Gandhi National Open University in 1985. More Open Universities got established thereafter, viz. Kota (1987), Nalanda (1987), and YC Maharashtra Open University Nashik (1989). Nearly five lakh students are at present enrolled in open and correspondence systems. This constitutes 12% of a total enrolment of about 42 lakhs in higher education. Open universities account for about one fourth of the non-institutional enrolment in higher education, the remaining being in traditional

correspondence courses.

3.06 Open School: In the early 1950's, school-broadcasts began to supplement the regular curriculum offered by schools and introduced the idea of learning outside the class-room. Television has been used for curriculum enrichment and instructional purposes, right since its introduction in 1959. In 1975-76, Government launched the Satellite Instructional Television Experiment (SITE) exposing 2330 villages in 20 districts of six States (Andhra Pradesh, Karnataka, Bihar, Orissa, Rajasthan and Madhya Pradesh) to specially pre-recorded TV programmes directly transmitted via the ATS-6 Satellite. The TV lessons were supported by instructors. Thus, a new dimension was added to the use of electronic media for teaching-learning. The significance of the experiment lies in two factors, viz. (a) education began to cover even illiterate adults and schooling got dissociated from childhood, and (b) India became the first large country to make use of direct receiving sets (DRS). In 1984, the Indian National Satellite (INSAT) Programme was launched for the age group 6 to 8 and 9 to 11 on three days per week, in selected primary school-clusters of Andhra Pradesh, Bihar, Gujarat, Maharashtra, Orissa and UP. For production of software, State Institutes of Educational Technology (SIET) have been established in these States. The Central Institute of Educational Technology (CIET)

guides their work. Thiss programme, when evaluated showed shortcomings such as custody and maintenance of TV sets, inadequate dovettailing of lessons with class-room teaching, etc. Wheere the TV sets have functioned well, a positive impact haas been evident.

The Open School is about to become a well-organized movement, especcially at the secondary level. The Conference of the Boaards of Secondary Education had recommended in 1965, imtroduction of correspondence courses for out-of-school youth and women. The objective was to help improve tthe performance of privately appearing candidates, in the certificate Examinations. The Board of Secondary Edducation, Madhya Pradesh, was the first to start correspondence courses for Intermediate students, iin 1965. This was followed by the Secondary Boards in Deelhi, Rajasthan, Orissa, UP and Tamil Nadu. By 1985,, about one lakh students were enrolled at various grade levels, under this programme.

3.07 National Open School: The Open School, established under the Central Board of Secondary Education, New Delhi, in 1979 went several steps ahead of correspondence educatiion. It began open secondary courses in 1981-82 and higgher secondary courses in 1988. In 1989, the Open Schoool was converted into National Open School. In 1990, itt became its own certifying and examining body. It hass on its rolls about 1.5 lakh students.

3.08 The number of students enrolled at the secondary and higher secondary stages in correspondence/open education is about 1% of the reported enrolment at these stages. The trend shows that among those enrolled in Open School, girls predominate. The need to offer open education facilities at the secondary stage has received increasing recognition. But information about the possibilities of coverage and quality of open secondary education has not yet fully reached those sections of society where it is most neded. Further course-offerings are being designed by the National Open School. Boards of Secondary Education that have recently decided to adopt the NOS model as against traditional correspondence courses, have begun preparations to launch their programmes in collaboration with NOS and one another, thus building a participatory network.

3.09 In teacher training, the NCERT and its Regional Colleges have been using self-learning packages for quite some time. More recently, as part of the programme of Mass Orientation of School Teachers, TV programmes helped supplement face-to-face instruction for in-service training.

Position on the Eve of Eighth Plan

3.10 The approach of NPE, 1986, and the Eighth Plan Working Groups to the OLS may be seen from the extracts given in Annexure III: Policy Precursors of OLS. Open

Learning receives support both in the National Policy on Education (1986) and the approach to education in the 8th Plan. The need to organize educational activities in a flexible manner has been recognized for meeting the challenge of preparing human resources capable of handling the multi-faceted socio-economic tasks thrown up by unforeseen worldwide changes in all spheres of life.

IV

OPEN EDUCATION CHANNEL : STRATEGIC DIMENSIONS

Thrust Areas of the 8th Plan

4.01 The document on objectives, thrusts and macro-dimensions of the 8th Plan approved by the NDC in its meeting dated 23 - 24 December, 1991, has identified the following human resource development factors among its priority objectives :

1) Generation of adequate employment opportunities to achieve full-employment level by the turn of the century.
2) Universalisation of elementary education and complete eradication of illiteracy in the age group 15 to 35.

4.02 In quantitative terms, this requires (a) coverage of 6.5 crores of children in the age group 6 - 14 in the threefold dimension of enrolment, retention and achievement, with special emphasis on girls and the weaker sections, and (b) coverage of 10.3 crore adults in the age group 15 - 35. Literacy, functionality and awareness which are essential for acquisition of life-skills and cultivation of the skills and habits of self-learning are the major components of adult education. These cover elementary education as well, from the standpoint of the age-group concerned.

4.03 The 8th Plan sets the target of progressive

opportunities for employment for all, in a ten-year time span. Generation of additional ten million employment opportunities per year on an average, essentially related to productivity, has been visualized, with emphasis on the rural sector. Agriculture with regionwise and cropwise diversification, wasteland development, forestry, livestock development, rural non-farm occupations, utilization of non-conventional energy resources, rural infrastructure such as roads and other means of communication, housing, health, education, and other services, urban informal sector, small scale manufacturing and so on have been identified as the sectors and areas constituting the basic elements of an employment-oriented growth strategy. In addition, it is proposed to raise the productivity and income levels of those who are at present under-employed or employed at very low levels of skills and income. This would entail the upgradation of skills for self-employment as also for wage-employment and improved access to credit and markets. All this effort requires the foundation of purposeful and flexible education, training and retraining. The employment generation target spells out the job that the education sector would have to undertake. The challenge is unprecedented. The education system must innovate in the direction of human development in all its manaifestations, from the level of performance in a locally essential job to that called

a) provide education and training as well as orientation of various segments of the population so as to achieve wage-employment / self-employment managerial skills / entrepreneurship.

b) build up the capabilities of educational functionaries for achieving universalisation of elementary eduction and adult literacy, in terms of access, retention and educational achievement;

c) make provision for the substantial demand for secondary education and beyond, resulting from UEE;

d) provide diversified academic and vocational education of good quality at the secondary level and beyond so as to meet the emerging needs for personal, social, and economic growth; and

e) gear various levels and types of educational opportunities for enhancing the overall quality of life in the national contexts.

Some Issues in Education : Participation, Equity & Quality

4.07 According to the Fifth All-India Education survey, 2.72 crore children were enrolled in classes VI - VIII in 1986, of which only 48.64 % belonged to the concerned age group. It also meant that 2.88 crore children were out of school. The gross number of pupils

enrolled in classes IX - X was 1.5 crore. At this stage, more than 2.30 crore children were out of school. While the gross enrolment has gone up, the enrolment percentage has gone down from 51.97% in 1981 to 48.5 in 1986. Following this trend, it is anticipated that current enrolment in classes VI - VIII would be 3.25 crore, leaving about 3.98 crore children out of school. The gross number of out of school children in classes IX - X would be 3.07 crore. Thus, more than 7.05 crore Indian children of the age-group relevant to classes VI - X would not be entering school. In addition, the adult population would contain dropouts from classes IV onwards and may profit by further learning opportunities although they may not wish to or be able to attend any institutional learning programme.

Equity

4.08 There are four major factors which obstruct equality of opportunity in the field of education, gender, caste, rural-urban or regional disparities, and economic deprivation. In 1986, the enrollment of girls in classes VI - VIII was 38.67 %, and that of the scheduled castes and tribes was 14.69% and 4.9%, respectively. The corresponding figure of enrolment of girls, SCs and STs in classes IX - X are 11.14 % and 3.9%. The rural-urban disaggregated data reveal that 48.69 % rural children are in school as against 66.98% urban children. Enrollment of rural girls is only

32.05%.

Quality : Context and Achievement

4.09 Education provided at the school stage has remained academic and too general to be of use in the varied socio-economic situations to which the pupils belong. Linkages with life skills and vocational oportunities are not to be found in the curriculum. Lack of relevance leads to lack of interest in studies. This is a major reason why of 100 children enrolled in class I only about 30 go upto class VIII. Of those who reach class X, only 60 - 70% are permitted to appear in the Board Examinations and, of these, only about 35% pass, with the majority in III Division. As matters stand, only 5 or 6 out of every 100 pupils enrolled in class I ultimately complete school-education and even of these, 3 - 4 just scrape through. This inefficient and unproductive school-system has become well-entrenched over 150 years. It has not been subjected to any public accounting or social audit and the questions raised about its relevance, equity and efficiency since Gandhiji's times to now, have been ignored or not understood, despite the radical changes effected in the school-systems of many an advanced and developing country in the past 35 years. . As a consequence, not only have millions of prospective pupils rejected this system altogether but, what is evident now, there has been considerable damage done to the country's

productive capacity by wholesale adherance to this system.

4.10 In this connection, the findings of Pravin Visaria and others (Pravin Visaria 1991) based on an analysis of 1980-81 and 1987-88 rounds of NSS, are highly instructive. In relation to age-group 10 to 14, it was seen that almost 50% boys and girls in rural Gujarat who had never been enrolled in school, were reportedly "not interested in education". The corresponding percentages for urban boys and girls in Gujarat were close to 40. In rural and urban Maharashtra, although lack of interest in education was not a frequently reported reason for non-enrolment, the percentages of out-of-school children giving this specific reason were close to 40 to 25 respectively. "Lack of interest in education" amounts to the prospective leaners' adverse judgement upon the current education system. While poverty is known to be a major cause of drop-out, the unsuitability of the kind of schooling available has now emerged as an important factor. If this happens in educationally and economically advanced States like Gujarat and Maharashtra, the situation in educationally backward States can well be imagined. From the standpoint of the context of education and the style of its organisation, particularly at the school-stage, the situation calls for a critical assessment and corrective measures.

4.11 The social, economic and, in general, the developmental scenario in the macro situation in the country is characterized by disparities. The limited contribution that education has made to individual and social benefit during all these years, should be a matter of deep concern to all since the continuation of the system in the conventional, and outdated style may worsen the situation. The present-day institution-bound education is marked by linearity, heavy expenditure which does not give corresponding returns in terms of value-added manpower, and rejection by prospective learners. Obviously, it was to be made people-oriented and suportive to development, both in context, process and organization. The stage for such action seems to have arrived.

THE PUSH FACTOR

4.12 In order to meet the demands of equity and due to the 'push' factor of increasing number of students moving up from the primary to the middle and from middle to the secondary stages, the facilities for post primary and secondary education must be increased. But simply to add to the current number of about 90,000 secondary schools may not be the answer to the situation. Apart from financial considerations, the questions of equity, efficiency and productivity of education gain paramount importance at the present juncture.

4.13 In the 7th Plan, for less than 45% gross enrollment in classes VI - X, the total Plan-outlay for secondary education was Rs.1830 crores and that for elementary education was Rs.2828 crores. The micro-level cost assessment for government-aided rural schools showed annual expenditure of Rs.700 per child. When supervisory and capaital costs are added, the actual per student cost to the State would be about Rs.1000 or more. The cost per child in the Kendriya Vidyalayas is much higher. Considering the rate of dropouts and failures, the unit cost, per pupil succeeding in completing school education, rises higher still. It is to be admitted that this schooling helps neither the equity concern nor productivity. Also as it does not meet the legitimate expectations of those who manage to enter it and complete it, social discontent and disorganization arise with great detriment to individual and national life.

Non-Formal Education (NFE)

4.14 NPE (1986) advocated Non-Formal Education as the second channel of education for those whose conditions do not permit them to attend full-time formal schooling or those who reject the conventional school because they have something more worthwhile to do. Flexibility of timings, curricula adapted to community-needs and to learner-preferences, participatory teaching-learning,

are some of the hall-marks of NFE. However, NFE is at an experimental stage and not yet released from some of the constraints derived from the full-time formal system. While this is not the place to examine the strengths and weaknesses of NFE, primary education through NFE seems to be accepted by those who are not inclined to attend or are unable to attend full-time school. The continuation of NFE is thus essential till it makes a dent on the full-time formal system in order to give it the necessary flexibility and relevance. The possibilities of following up NFE in further academic or semi-vocational courses need to be opened up urgently so as to set a new trend of 'learner-demanded' education. Open Education could offer these possibilities.

Open Education as the Third Channel : Some basic features and possibilities

4.15 Acquisition of life-skills, vocational skills directly contributing to productivity, and inculcation of habits of self-learning, could be the major thrusts of Open Education. An education system that is easy of access and responsive to the needs and conditions of the learners in different localities and areas, could gradually emerge in a systematic form if Open Education is offered as the third channel of need-based learning. Being demand-based, the open system would also be cost-effective, with an inbuilt dynamism which can keep it related to personal as well as socio-economic demands

which are bound to keep changing rapidly with the onrush of science and technology into all facets of our national life.

4.16 Without constant monitoring and mid-course corrections, the OLS can also become as rigid and inequitous as the institutional system, especially if it merely repeats and mirrors the formal education courses and continues to cater to the client groups that are already being served. However, the National Open School has demonstrated that it is possible, with a deliberate effort, to concentrate on certain priorities. In the last five years, the enrollment of girls in the NOS has risen from 20% to 41%. NOS today has students from literally every State of India, even though its courses are offered only through Hindi and English.

Catering to Prioritised Client Groups

4.17 The prioritised client groups to be serviced by OLS may be identified as :

- Girls, Women
- SC/ST
- Rural and Urban Poor
- Unemployed
- Young adults, especially in the age range of 15 - 35
- Untrained Teachers

- Inservice teachers, headmasters and supervisors,
- Employed persons anxious to avail of elementary or secondary or vocational education.

4.18 In terms of educational attainments and competencies, the priority would have to be for :

(a) Those with education equivalent to primary schooling or above, but below the secondary, viz. classes VI - VIII

(b) Those who seek vocational education in order to get a job or better prospects

(c) Those drop-outs who are under-matriculate, wishing to get a secondary and HSE level education.

(d) Those who seek instruction in discrete subjects essential for a job or further education.

Educational Programmes

4.19 While the need and feasibility of intervention of OLS at secondary and tertiary levels, as regards academic as well as vocational curriculum has been accepted, the role of OLS in primary and even at the upper primary stage may not be seen as important or even acceptable by some. The arguments against would generally be the lack of maturity of the learners, lack of firmly acquired literacy-skills, etc. which would impede self-learning. Also for working children, NFE

has already been launched as an alternative facility for primary and middle-school education. But it must be pointed out that there are many older children and even literate adults who wish to take up further studies at the elementary level and for these, facilities of the OLS type must be provided. Open elementary education could thus meet a genuine demand from clientele whose self-assessment as prospective learners would have to be accepted. The experience of NOS shows that such self-selected learners are highly motivated and perform well. This can happen with similar learners at the elementary stage. The proposed project of Open School in Andhra Pradesh, designed to cover learners from class VI onwards, provides concrete evidence that there is a perceived demand. The possibility of systematically organizing OLS at the upper primary stage and thus bringing the bulk of drop-outs and push-outs of elementary schools back into education, needs to be explored. The Andhra Pradesh experiment is important from this standpoint. Projects of the type undertaken by Andhra Pradesh may be evolved in other States also, on the basis of local needs and possibilities.

4.20 The recommendations of the recent All-India Annual Conference of the Council of Boards of School Education (COBSE) held in Goa in November, 1991, are relevant in this respect. It was recommended that OLS should play an interventionist role in helping to

achieve the national objective of 'Education for All', by providing a second chance and continuing education to the drop-outs, working-population, housewives and all deprived sections desirous of improving their educational qualifications, skills and training levels. It further recommended that State Open Schools may be set up, either as part of the Board in the initial stage, or as an independent agency.

4.21 Discrete subjects or clusters of certification-oriented subjects, viz. languages, sciences, mathematics, social sciences, etc. and vocation-oriented courses, depending on the learners' choice can be offered at the middle, secondary and higher secondary levels. The trend is already in evidence in programmes to propagate Hindi, Sanskrit, English, Mathematics, etc., through private channels.

OLS: Vocational Skills

4.22 Apart from academic open education, an encouraging trend is seen towards facilitating vocational education through the open system. Need-based courses related to self-employment and increased productivity are being evolved in the following areas :

(i) Agriculture : farming, horticulture, floriculture, sericulture, agricultural technology, post harvest technology, food-processing, soil and water testing, livestock

raising, marketing etc.

(ii) Engineering : construction technology, construction-supervision, repair and maintenance of structures and of agricultural equipment, fabrication and maintenance of electrical, mechanical and electronic equipment, etc.

(iii) Health and Sanitation : lab-technicians, para-medical personnel, water-analysts, malaria eradicators, vaccinators, creche-attendants, home-nursing and nutrition personnel;

(iv) Services : Secretarial courses, business management, accountancy, computer science, catering, journalism, textile design, interior decoration, garment-making, embroidery, etc. Depending on regional needs and demands, there could be special courses for preparing teachers and candidates for ministerial and other support-staff in government, trade and industry.

4.23 It is essential to build up popular interest in open education, especially for turning the tide away from general academic education and guiding it towards vocational and life-skill courses. For generating popular interest in vocational education and for exploding the myth that vocational education is meant for those having lower intelligence, Tamil Nadu prepared videos and exhibited them through several outlets including State TV Centres. Popular interest in

vocational centres at the middle and secondary stages was aroused with great success. Vocationalization of secondary education has made remarkable progress in Tamil Nadu. Popularising and demystifying open education and especially open education for vocational skills must, therefore, be considered as an essential step in organizing open education for employment generation.

V

SUPPORT SYSTEM FOR OPEN EDUCATION

NODAL ORGANISATIONS

5.01 The nodal Ministry for implementing Open Education will naturally be the Ministry of Human Resource Development, working in close collaboration with the Planning Commission in order to keep the programme geared to employment opportunities and life-long learning for renewal of knowledge and skills.. The National Open School and Indira Gandhi National Open University, alomg with State Open Schools and State Open Universities, would be the nodal agencies for organizing, momitoring and evaluating various types of open education.. The experience of NOS in building course-linkages with Shramik Vidyapeeths for provision of vocational education and a similar approach by the YCMOU towards courses in horticulture, agriculture and related technology for rural learners are most welcome directions for the future of education in the rapidly changing socio-economic conditions in our country. The efforts of the YCMOU towards acquiring the character of a mass university as against the conventional concept that a university is meant for a few, are specially to be noted.

5.02 The highest policymaking and programme-evaluation organization for education, with

representatives from all the States, is the Central Advisory Board of Education (CABE). It may be beneficial to strengthen this role of the CABE further by enabling it to annually review national and international trends in education in the context of socio-economic and political factors, and advise government on new programme initiatives on the basis of a critical assessment of the situation. The CABE may also suggest, on the basis of evaluative reports, adaptation of the ongoing programmes in accordance with perceived needs. A Standing Committee of CABE on Open Education may be set up, as this would begin the trend towards looking upon education as a varied and self-renewing system for stimulating social change and economic developments. With Member (Education), Planning Commission, as Chairperson of this Committee, linkages between the HRD Ministry and Planning Commission would be facilitated, both at the policy and implementation levels.

COLLABORATING AGENCIES

5.03 Inter-ministerial collaboration appears to be crucial for achieving the objectives of open education. A wide-ranging spectrum of courses, catering to the needs of various sectors of the economy, would have to be offered and these can best be designed under the guidance of the Ministries concerned, viz. labour, health, agriculture, rural development, electronics,

social welfare, communications, information and broadcasting, industries, co-operation, and human resource development. The Ministries concerned would have to be systematically interlinked and their programmes co-ordinated from time to time. This collaboration will be essential in policy evolution, implementation, and sharing of financial allocations. Each concerned ministry may contribute a certain percentage of its budget towards supporting networked programmes of open education. In view of the complexity of this task of co-ordination it would be best to entrust it to the Planning Commission.

5.04 Implementation of Open Education at the State and district levels has necessarily to be a collaborative effort by several agencies and institutions , providing Learning Resource Centres, at the State and district levels. Government and non-governmental agencies may be used for this purpose. For instance, SCERT, SIET, and (more recently) DIET exist in the government sector for servicing formal education. They have done it for such a long time, that it may be desirable to instil some flexibility in them by building their linkages with State Resource Centres for Adult/Non-Formal Education, Shramik Vidyapeeths and Centres/ institutions/ programmes conducted by voluntary agencies and other non-government organizations, for non-formal and part-time, own-time academic / vocational education.

5.05 The third level of collaboration will be with institutions and organisations that will act as Study Centres or Work-Centres or workshops for learning and training.

Today, there are over 10,000 vocational institutions which include vocational schools, vocational centres, community polytechnics, ITIs, Shramik Vidyapeeths, Krishi Vigyan Kendras, Health Centres, Farmers' Training Centres, training facilities offered by voluntary agencies, professional organizations, and so on. Participation of competent and innovative organizations will have to be insisted upon at the State, District and local levels of which none will be subordinate to the other but will be treated as equally important for managing the flow of decisions and actions covering a purposive system of open education. It will have to be ensured that an innovation like open education does not get bogged down by administrative routines, and hierarchical official structures which impede the freedom of decisions and action at the point of delivery of services, and antiquated financial procedures which generally accompany conventional government schemes.

VI

COST AND FINANCING

6.01 The collaboration of various organizations as envisaged in this Report would help optimise the use of existing resources and help larger and better returns at moderate cost. However, it must be remembered that while the initial investment in organizing diversified Open Education has always been substantial on account of (a) preparation of multi-media learning packages, (b) the approximate period of about two years required to develop new courses and packages, and provision of some infrastructure. However, the experience gained so far has proved beyond any doubt that the per student cost substantially decreases when the packages of teaching - learning materials begin to be used by the learners for the courses in which they enroll. In the National Open School, using the usual formula of dividing the total expenditure on the programme by the total number of students, the current per student cost of imparting secondary education is found to be around Rs.200/- only. This covers both academic and vocational courses. The YCMOU, which has just begun the programme with substantial packages of material (booklets, Audio Video Cassettes, gadgets for experiments, etc.) and linkages with numerous Contact Centres finds that the present per capita cost for newly instituted vocational courses is Rs.700/- but is expected to come down in the next 2 - 3

years as the coverage of the courses increases. It must also be noted that in the National Open School, no fees are charged to the prioritised client groups, viz. women, SC/ST, handicapped and ex-serviceman constituting about 60% enrolment, while the general category pay moderate fees. In spite of this restriction on income from fees, the NOS requires a government grant only to the extent of 15% of its Non-Plan expenditure. Thus, the cost per student to be borne from government finances has remained quite low in the open education arrangements. Any enterprise which gathers the utmost profit and human benefit from low financial investment but high efficiency in meeting a genuine demand, is to be preferred to a high-cost and low-return system. Therefore, the open education system has to be seen from this angle also. In its practical side, jobs are done and items are produced as part of training. This aspect of production as a concomitant of training brings down the costs of open education still further. Although exact costing of the currently conducted courses is yet to be systematically done, the studies undertaken so far show that in open education, per student costs are about one-fourth of the costs in institutional education.

6.02 The cost-effectiveness of degree-level Distance Education which is the precursor of open education, is most impressive. At present, Distance Education accommodates nearly 12 % of the total enrolment at the

tertiary level, while the size of allocation made by the UGC for this programme is only 0.5%. The establishment of more open universities for upgrading the correspondence courses of the traditional type, into contact-supported courses will no doubt require more initial investment. However, the quality of learning would greatly improve because of the well-designed packaged material and guidance provided by the Contact-Centres. Besides, when the student strength exceeds critical levels, the per capita costs of open higher education are expected to show much reduction.

6.03 Targets: The 8th Plan, which aims at removing educational disparities and increasing employment opportunities in non-traditional sectors to a large extent, recognizes the need for updating the skills of many and imparting new skills to a vast number. Besides giving all children and youth the basic competence derived from general education, the objectives of the 8th Plan call for a new approach to educational organization. Each State/UT may, therefore consider setting educational targets in accordance with its need for adult literacy, UPE/UEE, and education for wage-employment/self-employment. While an overall target for this goal can be broadly visualized at the national level, it is ultimately the UT/State and districtwise plans and targets that will spell out the organizational and financial implications of Open Education.

6.04 Considering the factors of unemployment and school-dropout as indicators for setting the targets for Open Education, the UT/State targets will have to be worked out accordingly. Skills, general information and social awareness of a level expected at the class VI - VIII level may be adequate as entry qualifications for those who wish to enter open education at the secondary level. Since many jobs and positions or further training stipulate a secondary level certificates, this stage may become the most acceptable to a large number of prospective learners.

VII

EQUIVALENCE AND ACCREDITATION

7.01 It is a cardinal principle in OLS that the standard of curriculum and expected achievement in any of the open courses should not be less than that expected in an institutional course, although the contents may be somewhat different, being need-based. Comparability of standards is essential as the products of OLS would have to be acknowledged as equal to those expected to be produced by the institutional system. This is necessary to enable them to find placements in jobs or in higher education and to emphasize the concern for efficiency in studies and in work-performance. It is obvious that comparability or equivalence of open courses with institutional courses will have to be decided on the basis of carefully formulated criteria related to acquisition of expected competencies. An appropriate organization will have to be entrusted with the task of formulation as well as application of the essential criteria of comparability. Considering that the open learning system is directed towards serving those who seek academic education as also those who seek job-oriented education, the evaluation organization will have to be specially constituted.

7.02 IGNOU has already set up a Distance Education Council for Higher Education. A similar Council for School Education is expected to evolve under the

leadership of National Open School. There are privately conducted job-oriented open education institutions with direct linkages with market-demand and these use the demonstration of the expected levels of performance on the job, as the chief criterion of success. They do not bother about equivalence with the formal system.

7.03 A meeting ground for these diverse evaluation systems could be provided by a National Consortium on Open Education. Such a consortium could have representatives from the open system, formal system, business and industry, Planning Commission, Ministry of HRD, Ministry of Labour, NIEPA and specialists in social auditing, who can objectively consider the comparability and equivalence problems on the basis of evaluative studies and relevant research. In the meanwhile, criteria adopted by NOS and various open universities may prevail, with due support from government because, ultimately, the open system has to prove its legitimacy and credibility through its performance which must be accepted both by the academic world and the world of work. The task of standardization, accreditation and maintenance of quality will ultimately be performed by the National Consortium on Open Education which would also network and oversee the entire OLS in the country.

7.04 In relation to cost-benefit, accreditation and evaluation, some normative directions would be essential

for OLS, as given below :

(a) Insistence on more intensive and more efficient use of existing facilities (buildings, equipment, software, curriculum, materials, training, orientation and experience). Systematic net-working for better utilisation of resources.

(b) State Boards of (School) Education can easily provide infra-structural facilities, for part-time and own-time education. Similarly, institutions such as ITIs, Community Polytechnics, Krishi Vigyan Kendras, progressive farmers, small-scale industry, projects of voluntary agencies should participate in open education. The Community Polytechnics, KVKs and rural secondary and higher secondary schools, should play a wider and stronger role to support rural learners. Collaboration between the formal and the open learning channels should be carefully established so as to be mutually beneficial. For instance, some students of formal schools may find the distance education texts useful for improving their performance in the formal system. The multi-media packages may exert a beneficial effect on teaching-learning transactions in formal institutions. On the other hand, institutional facilities could be

used for contact programmes in open education.

(c) Since open learning is essentially distance education' which is a guided exercise in self-learning, a continuing effort to make the support institutions work efficiently must be made. A service orientation will be necessary for them. A narrowly commercial or quid pro quo attitude would be harmful to OLS.

(d) Financial support for students in OLS would have to be based on well-established criteria. Financial assistance to the State Open Schools would be necessary for programme-support such as, training, shared production of materials (print, audio and video packages), evaluation, and so on. The students should contribute to the services they receive, be it cost of materials, examination cost or student service cost, etc. No one should be made to lose self-respect by providing a totally free education, but reasonable concessions to the indigent and weak would be in order. It has been realized that whatever is free is seen as "worthless" by the recipients. The recipients gladly pay for whatever is worthwhile.

(e) The Open Learning organization should have the necessary autonomy, with clear guidelines for operation. Old-fashioned administrative and

financial controls based on the mistrust of the user should be discarded as they would obstruct the performance of the open learning system. OLS must remain dynamic. Autonomy coupled with accountability to the users, to society and to the norms of financial probity should be the way of functioning.

VIII

SOME EXAMPLES OF OPEN EDUCATION

8.01 Five examples of Open Education are presented below. These indicate what can be achieved through OLS in relation to the educationally neglected segments of society. The examples are : NOS, APOS, IGNOU, YCMOU and Vivek Darpan.

(1) National Open School

The National Open School already referred to, evolved out of the Open School of the Central Board of Secondary Education and has significant achievements to its credit. The number of students annually enrolled by it has increased from 3,164 in 1982-83 to 49,000 in 1989-90. In 1989-90, 6.4% of the students were enrolled for the bridge course, 50.47% for secondary courses and 43.31% for Senior Secondary Courses. However, the new enrollment for the 'bridge-courses' which are equivalent to the middle stage, has increased sharply from 7% in 1982-83 to 24% in 1987-88. This is significant since this post-primary group is the most educationally needy group. Despite English and Hindi as the only media of instruction, SC students accounted for 14.48% and ST students accounted for 4.18% in 1988-89. These percentages are well above the national averages. The majority of the students are in the age bracket 17 to 21. But it is noteworthy that those in the age group of

14 to 16 are 27.18% which reveals the need for an alternative channel of middle-school education for young workers. In 1987-88, 15.04 of the students were employed and the rest i.e. 84.96% were unemployed. In 1987-88, 20.7% of the students were rural and the rest were urban (though these statistics need careful interpretation in the context of rural parts of Delhi U.T.)

As to the medium of instruction, 80% of the students study through Hindi and the rest through English. The NOS offers a variety of courses but the foundation or basic education course is obligatory. Thereafter, nine secondary level courses, eighteen senior secondary level courses, two courses in community education, and seven vocational education courses offer a wide choice.

The NOS works in a decentralised manner through "accredited institutions" of which there are 191 at present. Accredited institutions shoulder a variety of administrative responsibilities like distribution of prospectus, distribution of study materials and academic responsibility like 'personal-contact' classes, evaluation of students' attainment, etc. However, there is a skeletom co-ordination centre for the North-East region based in Calcutta.

The per learner cost in the courses of the NOS has gone down from Rs.719 in 1981-82 to Rs. 253 in 1988-

89 and Rs.200/- in the latest year.

The income of the NOS has increased from less than Rs.10 lakhs in 1980-81 to Rs.100 lakhs in 1989-90. It received Rs.87.78 lakhs as grant-in-aid from Government in 1989-90.

(2) Open School in Andhra Pradesh

The Government of Andhra Pradesh has established, in 1991, an autonomous body called Aandhra Pradesh Open School Society, to provide education for school drop-outs especially girls, housewives and working women. The Society intends to cover 2.25 lakhs drop-outs in 10 districts of Andhra Pradesh, at the school stage. It will equip them with the competencies and qualifications necessary to become useful citizens. It will have general education courses from class V onwards with addition of courses like animal husbandry, agriculture, health and hygiene, rural based and agro-based technical courses. These will lead to certification. Life-enrichment courses without certification, will also be offered. The scheme is still in the formative stage and its funding is yet to be firmed up. However, since Andhra Pradesh was the first State to start Open Education at tertiary level in 1982, it has adequate experience in the area and its initiative at the elementary stage holds considerable promise to provide meaningful 'education for all' through the open channel.

(3) Indira Gandhi National Open University (IGNOU)

IGNOU was established in 1985. It offers a variety of courses but its most popular courses are Diploma in management which has an enrollment of 15148 students and non-formal Bachelor's Degree course with 26392 students. IGNOU has its own audio-video production studio. It has produced 169 video and 249 audio programmes to supplement printed material. For student services, it has an impressive network of 13 regional centres and 131 study centres throughout the country. By the end of 8th Plan, it proposes to establish a study centre in each district of the country. IGNOU is also exploring the possibility of establishing study centres sponsored by industry and voluntary agencies. Mobile Study Centres for reaching remote areas are also planned. IGNOU is expected to have an enrollment of 2 lakh students at the end of the 8th Plan. (Proposed enrollment in March 1992 : 1.50 lakhs). Apart from expanding the present certificate, diploma and graduate programmes in management, distance education, creative writing, commerce and library science, IGNOU is planning to offer courses in rural development, higher education and basic sciences in the near future. During the 8th Plan, IGNOU's thrust would be on introduction of non-traditional employment-oriented courses, courses in counselling and guidance for primary teachers, nutrition and health education, early childhood care and education, construction

management and water resources management.

(4) Yashwantrao Chavan Maharashtra Open University (YCMOU)

YCMOU, although formally established in 1989, had its antecedents in the Open Institution of the University of Poona under which a lot of preparatory work was done. The goal of the University is to become a "mass varsity". As such, it emphasises vocational, technical and professional as well as general education programmes not only at the tertiary level but also at functional levels and outside the academic format, related to development and increased individual incomes.

(a) Agriculture & Horticulture:

This open university has planned courses in agriculture and horticulture. Ten representative crops have been selected, viz. Grapes, mangoes, cotton, groundnut, onion, 'toor' or 'arhar' (pigeon-pea), Kardi (safflower oil-seed), ber, (jujube), pomegranate and sugarcane. Working farmers study production processes with the help of specially written print materials, audio-visual aids, two-way communication between individual farmers and agriculture experts, and contact sessions. For contact sessions, the University uses the concept of "prayog parivaars" i.e. a sort of extended 'family' of 'experimenters' which enables producers/learners to get together to exchange ideas and

benefit from each other's experience. The YCMOU has taken the first step to eventually develop an 'expert system' through which difficulties of the individual farmers would be solved with the help of answers provided by successful farmers. Thus a chain of dialogues would be built among collaborative self-learners and initiators of development. This is the final shape of the 'Prayog Parivaar'. The philosophy behind this programme is similar to that evolved by the Brazilian philosopher and adult-educator, Paulo Freire. It is assumed that whereas conventional 'extension services' keep the farmers only at the receiving end of information sent by agricultural universities and 'domesticate' them into accepting the extension-worker's wisdom, the 'experimenter-learners' produce an interactive chain of initiatives based on local use of science and technology and thus liberate their own creative energy, leading to higher productivity and local research. 'Prayog-Parivaar' enhances the capability of the villagers to communicate, collaborate and achieve participatory development.

The course in grape-growing is of four months' duration. This was started during March - June, 1990 and 80 farmers enrolled in it. Print materials were produced and distributed to the learners. These have been prepared by cultivators and scientists working together.

The full programme of one-year duration on grape growing was launched in February, 1991, in collaboration with the Maharashtra Grape Growers' Association. Other cropwise courses are at the final stage of development, in a similar manner.

(b) Electronics and Computers: The Diploma in Applied Electronics developed by the University keeps in view the increasing demand for the trained electronics engineers, technicians and technical supervisors. Course-work consists of 16 credits (560 study hours) worth of theory, 16 credits worth of practical work and 8 credits worth of project work. Study materials have been developed by the best experts available in the field. The instructional package consists of self-study texts, video demonstration tapes, a special manual and an innovative home experiment kit. Students would be able to obtain this kit against a deposit and perform more than 50 experiments at home. Institutions with adequate technical facilities are being identified as Study Centres. At the Study Centres, students would obtain individual guidance and perform complex practical tasks under the guidance of counsellors.

The following programmes are under preparation : Diploma in Electronics; Advance Certificate in Industrial Electronics and Computer Technology; Certificate Courses in Repair & Maintenance of Radio, TV

& Electronics Appliances etc.

(c) Vocational Certificate Courses

The University has undertaken to launch short-term certificate courses for various trades and professions. There would be no formal qualification necessary for entry to these programmes. At present 13 such courses are under preparation and would be launched in the near future.

(d) Developing Linkages

A 'mass varsity' has to cater for a variety of target groups and has to develop linkages of various kinds at all levels. The University has already established contacts at village district, state, national and international levels. At the international level the University is linked with the Commonwealth of Learning (COL), Vancouver, Canada.

The University is a member of Asian Association of Open Universities, Bangkok. It is closely linked with the IGNOU in Marathi medium courses.

The NABARD and Yashwantrao Chavan Pratishthan, Bombay have provided grants to YCMOU for developing crop-wise courses and audio and video materials for crop-wise courses for farmers.

In the development and implementation of its academic programmes, the YCMOU is extensively relying on

the assistance of and contribution by Universities, Colleges, Institutions an from all over the State. Some of th organisations are : Yashwantrac Chava Bombay, Homi Bhabha Centre for Scie Bombay; Indian Institute of Technology Maratha Chamber of Commerce, Pune; Mah Growers Association, Nashik; Marathwade Poona University.

YCMOU has also made attempts to de at broader mass level by organising a se seminars and made the University visible communities for promoting mutual interacti

(5) Vivek Darpan Project and its Evalu

Doubts about the utility of technology for adult education have been with the findings of the evaluation study Darpan Project which was conducted o Department of Electronics by the Indian Mass Communication (1991). The project villages in each of the 4 districts (Ali Bikaner in Rajasthan, Jhabua in MP and Ra which were provided with two Sanghamitra C systems for Community Video Centres consis and VHS - VCP. The back up software con different programme on 1/2 inch video ca

types of programmes - motivational and local news type - were generated locally for every Vivek Darpan Study Circle. ET & T was to provide two resident technicians for project maintenance, upkeep of hardware and to maiantain and organise "Circle Video Library". Two specially assigned officials were in charge of Central Programme Coordination. The specific objectives of the project were :

i) To use the audio-visual media as a multi-user multi-tasking system for tackling wide-ranging needs of rural population.

ii) To help in removing illiteracy and to give the literate the vocational and various forms of guidance for improvment in the quality of life.

iii) To motivate the illiterates to move towards literacy by making them aware of the usefulness of literacy.

iv) To create an experimental infrastructure to evaluate the various types of video programmes for future replicability.

v) To evaluate field performance of hardware.

The evaluation showed that the project effectively did not take off in Ranchi. In the remaining three districts, the project faced a lot of technical difficulties including maintenance of TV sets. However, where the sets did function and were utilised, the evaluation was positive as could be seen from the

conclusion which is reproduced below :

"To conclude, it emerged that despite many limitations and constraints, the project Vivek Darpan was effective in generating desirable interest and awareness among the villagers in experimental villages about adult literacy and other development issues. This is particularly heartening in view of the fact that only a small proportion of the total adult population in the experimental villages (3 to 8 per cent) was exposed to the Vivek Darpan programmes and there were many constraints and limitations in the proper functioning of the programme (like frequent breakdown of the hardware especially the VCP's and inability to explain the software and answer queries by the Anudeshaks/Preraks in most cases). This is suggestive of the fact that though actual exposure was limited, the main thrust of messages and suggestions in various video programmes got spread among non-exposed villagers as well as through interpersonal communication channels which are strong and effective in village communities."

"Finally, the efficiency of the electronic technology for communication with rural people gets clearly demonstrated by the Vivek Darpan experiment despite many of its constraints at the operational and management level. Therefore, in order to use electronic technology for speedier achievement of objectives of the National Literacy Mission and other development

programmes and schemes in the context of rural India, a lot more efforts need to be made at the organisational level. Far more resources, man and material, need to be mobilized for proper planning, coordination, training and motivation for optimum benefits / results from Vivek Darpan."

8.02 The five examples cited above differ considerably in their conceptualization, content and details of implementation. But all of them focus on the neglected sections of society in order to increase their competence as citizens, students and producers of economic benefits. Besides, each example recognizes the need to provide localized, client-specific, education programmes, with a built-in provision for experimentation, evaluation and safeguards for protecting the qualitative aspects of the programme. The principle that standards of human competence are not static and uniform but ever-evolving and multiform, is also implicit in these examples.

IX

CONCLUDING OBSERVATIONS AND RECOMMENDATIONS

In the light of our discussions and keeping in view the policy precursors and requirements of the 8th Plan, the following concluding observations and recommendations can be made about the Open Learning System :

1. OLS has a tremendous potential for the fulfilment of the 8th Plan objectives of 'Education for All', vocationalization of secondary education, training and retraining for wage-employment and self-employment of the rural population and urban workers, along with academic advancement of learners, in accordance with their requirements. Open education, therefore, can play a significant role in spreading relevant education in a big way and help gear up rural and urban economies by increasing productivity.

2. Action to expand OLS channels during the 8th Plan need to be pursued by (a) making use of available organizations in the Education Sector, and (b) exploring the possibilities of involving commerce, industry, the service sector and rural development organizations in OLS in suitable ways.

3. The National Open School, already established, would have to be strengthened for meeting the educational needs of (a) Open Secondary Education (b) Open Higher Secondary Education, (c) Open Vocational Education and (d) Open Upper Primary education, the last on an experimental basis. Focus on out-of-school urban, rural and tribal youth, adolscent girls, women, and the rural farming communities in general is essential for linkages between education and development.

4. State Boards of Secondary / Higher Secondary Education have accepted the need for an open channel of education. Each State / UT may be required to set targets in accordance with needs, available facilities and facilities to be newly provided.

5. At present, there is a National Open University (IGNOU) and four State Open Universities. Some more may come up in the near future. Mass-oriented State Universities like Yashwant Rao Chavan Maharashtra Open University, Nashik (YCMOU), have already started well-designed courses for locale-specific agricultural / horticultural education in specific market oriented produce like oil-seeds, pulses, grapes, mangoes, etc. The existing Open Universities

may consider innovative programmes on the lines of YCMOU for accelerating the pace of rural productivity in their region.

6. Since the involvement of Open Universities in innovative programmes for promotion of self-employment for rural productivity is important, Planning Commission may consider inviting the Vice-Chancellors of Open Universities for a meeting to be addressed by Dy.Chairman where implications of such involvement may be discussed further to prepare a concrete Plan of Action to be launched in the 8th Plan.

7. The Shramik Vidyapeeths under the Department of Education have been imparting skill-improvement training and life-skills to urban industrial workers in the organized sector and their families. To the extent possible, SVPs have also been giving market-oriented job-training to youth and women in the needy urban groups. In the 8th Plan the Shramik Vidyapeeths should be guided to shift their attention much more to the organization of self-employment training for youth and women in the urban informal sector, relating to technical skills, marketable arts and crafts, urban services, and so on.

8. Business, industry and professional organisations may be called upon to set up their own Education and Training Units with a view to

training, in collaboration with open education institutions, the manpower required according to their own emerging demands. The Chambers of Commerce and professional organizations like Builders' Association, Engineers' Association, etc., should be encouraged to interact with educational institutions at various stages to provide job-oriented training in keeping with market demand. Their course-materials and techniques of training may be guided by Open Universities and Open School Organizations, under appropriate contracts.

9. Various Ministries involved with imparting training and providing sectorwise manpower need to interact and build linkages for evolving open education and training mprogrammes. These programmes would need standardisation, modularisation and gradation so as to ensure their efficiency and market acceptability. Eventually, they should aim at getting accrediation for which organizational arrangements would have to be made. Each Ministry may contribute from its budget an appropriate percentage for this purpose to the Open School/ Open University selected as collaborator. In view of the complexity of the task of coordination, it is best to entrust it

to the Planning Commission.

10. The design and development of a variety of location-specific courses bearing on agricultural, agro-based industries and related services such as processing, storage, transport, marketing, accounting and so on may be looked upon as an essential aspect of micro-planning for area-development. Agricultural Universities in collaboration with Open School and Open University structures should undertake this activity and build practice-networks through Krishi Vidyan Kendras, Community Polytechnics, other Rural Development Organisations and programmes such as KVIC, Khadi and Village Industries Boards, TRYSEM and so on. DRDA's should be involved in this programme.

11. The specific recommendations in relation to KVK's can be stated as follows : New KVK's should be run either by NGO's or Chambers of Commerce and Industry, Industrial Trusts and the fertilizer industry in particular. The KVK's may concentrate upon new thrust areas region-wise and crop-wise.

12. Resources and cooperation of voluntary organizations may be enlisted for extension of the Open Education Channels especially for employment oriented courses in health and sanitation, agriculture, horticulture,

livestock development, artisanship, construction sector, etc.

13. There should be a large OLS teacher training programme, especially for meeting the urgent requirements for trained primary and secondary teachers in the predominantly tribal education programme of the North-Eastern States. Also, teachers at all levels including instruction in AE/NFE programme should be required to understand the need, purposes and processes of OLS. IGNOU and NOS may prepare a programme for the induction training of teachers in remote geographical areas where the need is most urgent.

14. The possibility of establishing a dedicated TV channel for education aimed to benefit the clientele identified in this Report (Girls, Women, SC/ST, Rural and Urban Poor, Unemployed youth and so on), as recommended by the Working Group on Satellite Services for Education, should be seriously explored.

15. The normative directions of operation enumerated in para 7.04 should be kept in view by the OLS organizations.

16. Open Education channels may be developed in a decentralised manner. The functional autonomy of Open Education institutions should be

protected. At the academic-technical level there may be a National Consortium of Open Education which could facilitate networking and oversee standardisation, accreditation and maintenance of quality through a process of mutual dialogue.

17. Since the Open Learning System consists of a cluster of innovations as regards planning, management, financing, networking, contact-centres, packaged materials containing both print and electronic media, localized supervision of implementation and achievement effort through Education Complexes, use of the dialectic method of teaching-learning incorporating the basic principles of andragogy, community support and so on, all the personnel engaged in the planning and process of these varied innovations would require intensive training. These training programmes should be planned and organized by the NOS, IGNOU, YCMOU and other organizations who have acquired the capability of launching and managing educational innovation and change. Adequate financial support for this programme would have to be provided without delay, by pooling the financial resources of government and interested agencies.

18. At the Policy and Programme level, a Standing

Committee of CABE, under the Chairmanship of Member (Education) should continually monitor and review various aspects of OLS, including new initiatives as and when they come up.

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GLOSSARY

AE	= Adult Education
APOS	= Andhra Pradesh Open School
DE	= Distance Education
HSE	= Higher Secondary Education
IGNOU	= Indira Gandhi National Open University
JRY	= Jawahar Rojgar Yojana
NLM	= National Literacy Mission
NOS	= National Open School
OE	= Open Education
OLS	= Open Learning System
SV	= Shramik Vidyapeeth
TE	= Technical Education
TRYSEM	= Training of Rural Youth for Self-Employment
UEE	= Universalisation of Elementary Education
UPE	= Universalisation of Primary Education
VE	= Vcoational Education
YCMOU	= Yashwantrao Chavan Maharashtra Open University

A N N E X U R E S

Annexe I

Composition and Terms of Reference of the Core Group on Open Education (Vide Planning Commission Office Order No.P-11058/4/91-Edn dated 16.12.91).

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COMPOSITION

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Chairman

1. Dr. (Mrs.) Chitra Naik, Member, Planning Commission.

Members

2. Dr. Ram Takawle,Vice-Chancellor, YCMOU, Nashik.

3. Fr.T.V. Kuununkal, Chairman, National Open School,39,Community Centre, Wazirpur Industrial Area, Delhi-52.

4. Prof.Satya Bhushan, Director, NIEPA,16-B,Aurobindo Marg, New Delhi.

5. Dr.V. Mandke, Indira Gandhi National Open University, Asiad Village, Khel Gaon, New Delhi.

6. Dr.N.G. Hegde, Vice-President,BAIF Development Research Foundation, Kamdhenu, Senapti Bapat Marg, Pune-411016.

7. Dr.S.S. Kalbag, Director, Vinyan Ashram, Pabal, Distt.Pune.

8. Dr. (Mrs.) D.M. de Rebello, Joint Secretary,Deptt. of Education, Ministry of HRD, Shastri Bhavan, New Delhi.

9. Dr.B.S. Hansra, Professor, Deptt. of Agricultural Extension, Punjab Agricultural University, Ludhiana.

10. Shri Alok Mukhopadhyay, Voluntary Health Association of India, Institutional Area, Behind Qutab Hotel, New Delhi.

11. Prof.M. Mukhopadhyay,Sr.Fellor,NIEPA, 17-B,Aurobindo Marg, New Delhi.

Member-Convener

12. Shri M.R. Kolhatkar, Adviser (Education), Planning Commission, New Delhi.

TERMS OF REFERENCE

(1) To review the existing arrangements in connection with the Distance/Opden Education, both outside traditional stages Education as well as at various stages of education namely Elementary, Secondary and Higher in all their dimensions namely accessibility, delivery mechanism, costing and funding, involvement of voluntary organisations and corporate sector etc.

(2) To identity factors contributing to effectiveness of Open/Distance Education from the point of view of quanity, quality, equity, efficiency and relevance for meeting the objectives of education , training employment, life skills and enrichment.

(3) Keeping in view the stipulations of the NPE,1986 suggesting provision of opportunities to the Youth, Women, Agricultural and Industrial Workers and Professionals to continue education of their choice at the pace suited to them and the requirements of the 8th Plan (1992-97), to make recommendations for expansion of channels of Open/Distance Education at various stages of Education as well as outside the formal stages.

(4) To make recommendations on establishment of appropriate linkages between the formal and Open/Distance Education channels as well as interse between different channels of Open/Distance Education.

(5) To make specific recommendations regarding institutional and financial measures required to be

taken to make Open/Distance Education channels effective including steps relating to production of materials, use of media in education and training, the arrangements for accreditation and equivalence and the role of States/UTs./Local Bodies.

(6) To make specific recommendations for fruitful involvement of private and corporate sector and voluntary sector in Open/Distance Education.

Annexe II

Gist of Points made by Experts during Discussions and Consultations held by the Core Group

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Various participants made insightful comments which are summarised below

1. Dr. Sohoni, BAIF, Pune.

Giving a presentation of the work done by BAIF, he stated that they treat training and education as an integrated whole. They provide training for self-employment, training for cattle development etc. They provide livelihood education in the tribal areas where they teach tribals about wasteland cultivation. The training is modular in terms of subject areas and in terms of sequence. The training is short, field centred and places a heavy emphasis on use of media and pictures rather than words. They not only impart skills training but also livelihood training and training in Quality of life aspects. They also operate a special training programmes for drop-outs. According to him, the training cannot be successful unless post training support is provided. This can be done by help in product design, entrepreneurial development programme and training in marketing. What is necessary is to develop "a culture of learning". There is also need for providing information services to trainers. Unfortunately, there is a dearth of such services. Available information services are geared for use of research and therefore, repackaging is required to be done.

2. Prof. Mahashabde,Technical Teachers' Training Institute, Bhopal/Extension Centre, Pune.

Prof. Mahashabde highlighted the role of community polytechnics in the matter of rural training. He pointed out that with very little cost , they are providing very usseful services. They had realised the concept of "work centre" in their operation.

3. Shri Adhikari, BAIF,Pune

Shri Adhikari suggested that we can have a system of the narrow-casting as distinguished from broadcasting. We should also get the inputs from science and technology departments for learning about the latest technological advances. We can make use of detailed district maps which have been constructed by use of remote sensing techniques.

4. Prof. P.B. Patil,Trustee of IIE

Prof. Patil stated that among the variety of courses to be developed, we should also take note of the nned for various courses which renew and revise our knowledge in the context of fast chaning needs and technology. Referring to Prof. Takawle's presentation , he opined that there cannot be a clear-cut division between course development, course, implementation and course evaluation. He also suggested the need of involving users in the development of courses.

5. Prof.G.Ram Reddy, Chairman, UGC

Prof. Ram Reddy appreciated the interest and initiative taken by the Planning Commission for development of Open Education at school level which he considered to be a progressive step. He observed that while open education

system might solve the problems of access, equity and flexibility, it would also shatter the myth that it can only be imparted at tertiary level. Questioning the conservative views of the critics that vocational education cannot be imparted through distance mode, Prof. Reddy citing international experience categorically stated that it is possible to impart it through distance learning system. Referring to the operational part, Prof. Reddy stated that while 60% of the material should be produced centrally, the remaining 40% may be left to the state level institutions. Besides there should be provisions for networking among institutions of Open Education and exchange of materials. Discussioning the importance and implications of forging linkages between open learning system at school and university levels, Prof. Reddy suggested that the possibilities of getting the work done on contract basis need to be explored. In this context he felt that open learning institutions should appoint the minimum core staff required. Referring to the different aspects of vocational training, Prof. Reddy highlighted the importance of identifying the institutions which could provide practical training to the students and serve as contract centres. Further, the need to give incentives to the institutions and their principals was also discussed.

Commenting on the possibilities of introduction of distance education courses in agriculture and health, Prof. Reddy emphasised that open learning system should upgrade technology and transfer it. To be successful it should be

flexible and aim at integration of vocational courses with academic subjects and give due credit to the work experience of students. Prof. Ram Reddy said that the technique of distance education could be effectively used in upgrading the knowledge of medical and health personnel.

6. Dr. Jayant Patil, Member, Planning Commission

Dr. Jayant Patil narrated his experiences of working with the adivasis of Thane District in Maharashtra and explained how he had succeeded in enabling the advasis to learn simple technologies of grafting of mangoes and introducing new crops which enhanced their income. He stressed the need to keep in view the agro-climatic conditions while introducing new crops. Referring with approval to the practice of involving farmers as examiners in agriculture subjects in Lancashire, UK, Dr. Patil suggested that such a procedure needs to be adopted in India. Questioning the need to set up separate agriculture universities, he flet that instructions on agricultural subjects should be imparted in all the universities in the country.

7. Dr. D.H. Nath, Consultant, C/O National Institute of Health & Family Welfare

Dr. Nath Supported the idea that health education should be linked with secondary education. Dr. Nath observed that the people in general need to be trained in health care system. He observed that so far very little effort has been made in this area and self-employment in the field of health has gradually been closed for the lower personnel. There is a need to impart health education right from the elementary

stage and in fact at this stage the distance learning techniques should be adopted. Dr. Nath also discussed the role of continuing education in medical care by focussing on latest knowledge and advances in the field of medical education. In this he felt that distance mode of learning could be very effective. Prior to starting distance education in the area of health education, Dr. Nath said that basic skills need to be identified. Besides, the contact centres should also be selected judiciously so that students could acquire practical training.

8. Dr. J.C. Anand,Consultant, Post-Harvest Technology, New Delhi

Dr. Anand stated that further advances in green revolution will largely depend on diversification of agricultural activity to the field of horticulture. This will include greater production of fruits, vegetables nd flowers which offer much better economic returns per unit area and are potential foreign exchange earners. This changeover is all the more necessary to meet our growing calorie needs besides ensuring adequate supplies of essential supplements like vitamins and minerals to fight malnutrition, increase employment and fulfil social objectives. Research and development efforts through a vast institutional framework during the last 3-4 decades have brought about a revolution in production of fruits and vegetables making India as the largest producer of fruits (24.0 million tonnes) after Brazil and U.S.A. and vegetables (46.0 M.T.) after

China. Due to lack of proper know-how and inadequate infrastructure in post-harvest management of these perishables, 2--40 per cent of this available food material (valued at Rs.3000 - 4000 crores) is lost annually. The increased production of some of these perishables often results in glut situation, fall in prices to unremunerative levels and increasing wastages. At the present rate per capita availability of fruits and vegetables is just 60gm. & 75 gm. respectively, which is too low when compared with minimum dietary requirements of 85 gm. & 200 gm. respectively. By increased production of fruits and vegetables and salvaging their existing losses from harvest to consumption, self-sufficiency in vital food materials not only in terms of quantity but also in terms of quality, can be achieved to a large extent. For this purpose open/distance education through audio-visual aid like slides, posters, flip charts, video films has to be harnessed for introduction both in general education in schools as well as production centres for fruits and vegetables. For schools these visuals should include subjects like living nature of fruits and vegetables and their senescence, their nutritional values, their role in combating different types of malnutrition, their safe storage outside and inside a refrigerator types of spoilage during storage, simple methods of their preservation at home including sun-drying, use of chemical additives, pickling, fermentation etc. For centres of production these subjects will include methods of harvesting, packing sheds and modes of grading and packing, storage godowns at room temperature

and cooled through evaporative cooling and regrigeration, various types of packing materials and mode of packaging, use of road and rail transport for effective hauling of perishables to assembly markets in the countryside and terminal markets, nature and extent of losses in different operations etc. National Open Schools and Universities, block headquarters and community preservation centres run by states and centre can be mobilised to spread this education and provide necessary linkages with Agricultural Institutions and Agricultural Universities for generation of publicity material and providing necessary tools.

9. Dr. P.N. Mathur, Asst. Director General, ICAR, N. Delhi

Dr.Mathur discussed the role and functioning of Krishi Vigyan Kendras. He said that the first KVK was set up om 1974 and at present there are 109 KVKs. Besides 74 are in the pipe line. While 65% of the KVKs are run by the State Agricultural Universities, 25% are run by voluntary agencies and the rest are managed by ICAR. The KVKs are conceived as vocational training centres to update the knowledge and skills of the farmers so that they could increase their productivity and efficiency. Each KVK has about 50 acres of land with demonstration units to impart training to farmers in agriculture and allied subjects, namely, sericulture, mushroom cultivation, dairy farming, etc. The duration of the training programme varies from 1 day to 3 months. With a view to discouraging successful trainees from competing with unemployed youth, no certificate is given to them. The

trainees are selected in consultation with the STaite departments of agriculture. It is estimated that each year the KVKs train about 4,40,000 farmers. KVKs have stromg research support from the state agriculture universities. Besides, there are 8 Trainers' Training Centres to provide resource support to the professional staff at the KVKs. The main emphasis at KVK is on the introduction of science in the farming so that scientific farming could be encouraged. Dr. Mathur opined that in view of the component of skills and practical training, distance education may have to be introduced in the field of agriculture with caution. However, he felt that KVKs and state agriculture universities could be actively involved in the preparation of modules and production of educational kits which could be effectively made use of in distance education programmes. Further, he felt that if open schools propse to offer certificate courses for the farmers, then KVKs could be actively associated. In this context he highlighted the potential establishing strong linkages among agricultural and open education institutions and also strengthening of KVks in terms of manpower and equipment.

9. Dr. K.V. Joshi,Jt.Secretary,M/O Rural Development,New Delhi

Dr. Joshi detailed the different rural development programmes of the Govt. of India. He said that 90% of the budget of Deptt. of Rural Development goes for poverty alleviation programmes. Major programmes are: IRDP, TRYSEM,

Drinking Water Supply and Jawahar Rozgar Yojana. He mentioned that 30% of rural population in India lives below poverty line and TRYSEM is an important programme meant for them. Under TRYSEM training is given to rural youth and during the course of training, their papers are processed for bank loans so that at the end of training they could be self-employed. On an average, under the TRYSEM about 2 lakh rural youth are trained every year. The TRYSEM programmes is basically implemented through the existing local level expertise and institutional infrastrucrures. The period of training varies from 15 days to six months and in some cases it is one year. Dr. Joshi said that nearly 60% of trainees succeed in getting self-employment or government employment. Although he felt that through open education programme the training component under TRYSEM could be improved, due to the low level of education among the people below poverty level, it becomes less effective. Of the 11% of population which has reached secondary level of education nearly 3% are still below poverty level. Shri Joshi also suggested the need to train rural youths in sophisticated areas like computers and electronics which have already been started in Maharashtra State. The JRY not only aims at providing employment opportunities but also asset creation at panchayat level. Major programmes like the construction of class rooms, community halls etc. are undertaken through JRY. Dr. Joshi also presented the brief details of a programme on development of women and children in rural areas (DWACRA) under which 10-15 women are supported to come together and

plan on income generation programme. An amount of Rs.50000 is given as seed money by the Govt. of India and so far 240 districts have been covered under this programme.

Annexe III

Policy Precursors of Open Learning System

1. Policy recommendations bearing on Open Learning System in NPE 1986 and in the documents relating to 8th Plan are specified below.

NPE-1986

2. The reference to Open and Distance Education and related aspects like Non-formal Education, Technology etc. are interspersed throughout the NPE,1986. They are quoted below:

National System of Education

3.11 "Life-long Education is a cherished goal of the educational process. This presupposes universal literacy. Opportunities will be provided to the youth, housewives, agricultural and industrial workers and professionals to continue the education of their choice, at the pace suited to them. The future thrust will be in the direction of open and distance learning".

Adult Education

4.13 "A vast programme of adult and continuing education will be implemented through various ways and channels, including:-

(a) establishment of centres in rural areas for continuing education;

(b) workers' education through the employers, trade unions and concerned agencies of government;

(c) post-secondary education institutions;

(d) wider promotion of books, libraries and reading rooms;

(e) use of radio, TV and films, as mass and group learning media;

(f) creation of learners' groups and organisation;

(g) programme of distance learning

(h) organising assistance in self-learning; and

(i) organising need and interest based vocational training programmes.

Non-Formal Education

" 5.9 Modern technological aids will be used to improve the learning environment of NFE centres. Talented and dedicated young men and women from the local community will be chosen to serve as instructors, and particular attention paid to their training. Steps will be taken to facilitate their entry into the formal system in deserving cases. All necessary measures will be taken to ensure that the quality of non-formal education is comparable with formal education".

Vocationalisation

"5.21 Non-formal, flexible and need-based vocational programmes will also be made available to neoliterates, youth who have completed primary education, school drop-outs, persons engaged in work and unemployed or partially employed persons. Special attention in this regard will be given to women".

Open University and Distance Learning

" 5.35 The Open University system has been initiated in order to augment opportunities for higher education and as an instrument of democratising education.

5.36 The Indira Gandhi National Open University, established in 1985 in fulfilment of these objectives, will be strengthened.

5.37 This powerful instrument will have to be developed with care and extended with caution ".

Delinking Degrees from Jobs

" 5.38 A beginning will be made in de-linking degrees from jobs in selected areas.

5.39 The proposal cannot be applied to occupation-specific courses like Engineering, Medicine, Law, Teaching, etc. Similarly, the services of specialists with academic qualifications in the humanities, social sciences, sciences, etc. will continue to be required in various job positions.

5.40 De-linking will be applied in services for which a university degree need not be a necessary qualification. Its implementation will lead to a re-fashioning of job-specific courses and afford greater justice to those candidates who, despite being equipped for a given job, are unable to get it because of an unnecessary preference for graduate candidates.

5.41 Concomitant with de-linking, an appropriate machinery, such as a National Testing Service, will be

established, in appropriate phases, to conduct tests on a voluntary basis to determine the suitability of candidates for specified jobs and to pave the qay for the emergence of norms of comparable competence across-the nation".

Technical and Management Education

" 6.6 In view of the present rigid entry requirements to formal courses restricting the access of a large segment of people to technical and managerial education, programmes through a distance-learning process, including use of the mass media, will be offered. Technical and management education programmes, including education in polytechnics, will also be on a flexible modular pattern based on credits, with provision for multi-point entry. A strong guidance and conselling service will be provided.

6.8 Appropriate formal and non-formal programmes of technical education will be devised for the benefit of women, the economically and socially weaker sections, and the physically handicapped".

Media and Educational Technology

" 8.10 Modern communication technologies have the potential to bypass several stages and sequences in the process of development encountered in earlier decades. Both the constraints of time and distance at once become manageable. In order to avoid structural dualism, modern educational technology must reach out to the most distant areas and the most deprived sections of beneficiaries simultaneously with the areas of comparative affluence and

ready availability

8.11 Educational technology will be employed in the spread of useful information, the training and re-training of teachers, to improve quality, sharpen awareness of art and culture, inculcate abiding values, etc., both in the formal and non-formal sectors. Maximum use will be made of the available infrastructure. In villages without electricity, batteries or solar packs will be used to run the programme.

8.12 The generation of relevant and culturally compatible educational programmes will form an important component of educational technology, and all available resources in the country will be utilised for this purpose.

8.13 The media have a profound influence on the minds of children as well as adults; some of them tend to encourage consumerism, violence etc. and have a deleterious effect. Radio and T.V. programmes which clearly militate against proper educational objectives will be prevented. Steps will be taken to discourage such trends in films and other media also. An active movement will be started to promote the production of children's films of high quality and usefulness".

Recommendations of the Working Groups for Eighth Plan

3. In connection with the formulation of the Eighth Plan (1990-95) according to the original schedule, a series of Working Groups were appointed by the Planning Commission which reported in 1988-89. Four of these working groups have made specific recommendations about open/distance education

which are referred to below. Recommendations of HRD appointed Working Group on Satellite in Education are also relevant.

Working Group on Elementary Education and Early Childhood Education

4. The Working Group recognised the role of Open Learning for Training of Primary Teachers in para 10.7 of its Report. It emphasises that it is important to promote self-learning among teachers. A teacher should be a life-long learner and needs to be encouraged and enabled to pursue further education of his choice at a pace suited to him. This should involve making available to him a variety of professional courses and short modular courses of a nature which he can take up and complete one at a time and earn credits. The Working Group suggested the setting up of a centre in each State to be called Open Institute for Teachers (OIT) for organising modular programmes of continuing education for teachers. OIT may be set up as a part of State Open University or as a Regional Centre of IGNOU and where neither exists, in an existing University Deptt. of a correspondence education. At the National level , IGNOU would have to coordinate the working of such OITs in collaboration with NCERT and UGC. At the State level, the OIT would have to function in close collaboration with SCERT, University Deptts. of Education etc. Credits would be awarded for successful completion of each module and acquisition of a specified number of credits may lead to award of a diploma or a degree.

Working Group on Secondary/Higher Secondary Education

5. This Working Group in para 7.10 of its Report has referred to correspondence courses run by State Boards of Secondary Education whose quality of material was indifferent but also to the change brought about by the establishment of an open school as part Central Board of Secondary Education in 1979. Referring to the proposed conversion of Open School into National Open School, the Working Group suggested establishment of a chain of open schools in States jointly with the National Open School during the Eighth Plan. The Working Group estimated the financial requirements of opening 15 to 20 open schools in States at Rs.40 crores in the Eighth Plan and suggested that the cost should be shared between Central Govt. and State Govts. on 50:50 basis.

Working Group on Higher Education

6. The Working Group on Higher Education in para 6 of its report envisaged a strategy of covering 50% of growth in enrolment in higher education through distance education system i.e. about 5 lakhs. However,taking into account the learning needs of the adult learners, it suggested a total enrolment of one million or so, accounting for 18% of the total projected enrolment in higher education. The Working Group considered the distance education system not just as an adjunct of the formal system but as a strong and substantial complement to it. It also suggested establishment of a countrywide net-work of distance education programme with IGNOU as its apex body and an accreditation Committee for various courses.

Working Group on Technical and Management Education

" 3.2 Upgradation of infrastructural facilities

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7. Development in the field of educational technology have made available a variety of audio-visual aids and reprographic facilities which could make the instructional process more effective. Adequate support should be given to institutions to organise audio-visual and reprographic services".

"3.10 Continuing education and re-training programmes: Although there is a growing awareness for continuing education and re-training programmes in engineering and technology, the existing facilities are grossly inadequate. The programmes in operation to-day are generally replicas of the formal education programmes.

A major organisation change is needed if the scope of the continuing education tasks is to be addressed properly in the context of the rapidly changing technologies.

There is need to formalise re-training programmes for engineering and technology personnel engaged in all sectors and these should be made mandatory. Increasing use of modern communication devices like television, computer, satellites etc. should be made in continuing education. Programmed learning packages have to be created and distance learning methodology employed to enable self-development and training of all scientific and technical personnel, who would care to - and need to - keep themselves updated. This calls for a definite strategy of creating knowledge base, developing resource material and offering modular packages of

learning, which a mature scientist and technologist can avail of.

Continuing education must become a national culture and should form a recognised activity of all technical education institutions. In fact, much of the manpower requirements in emerging areas should be met by retraining technical personnel already in employment ".

Working Group on Satellite for Education

8. Working Group on use of satellite services for education which reported in 1989 worked out transmission and distribution costs for educational TV net-work approximately at Rs.800 crores.

Annexe IV

Training for Employment: Examples of Formal & Non-Formal amenable to OL Channel

I. Formal Training

1. Some formal training programmes are available under the Education, Agriculture and Rural Development Departments and the private sector. Their effectiveness can be increased immensely by bringing them partly into the Open Education System.

2. Programmes under Education Department

a) Technical Industrial Arts and Crafts Schools

There are 3720 such schools which prepare students for the 10th Standard but with one vocational subject from among the following: carpentry, blacksimthy, moulding, welding, fitting, turning, plumbing, building construction, rural technology, textile, wireman. In 1987-88 their enrolment was 3,14,104. These technical schools are concentrated in the States of Maharashtra, Gujarat, Andhra Pradesh, Karnataka and Kerala.

b) ITIs

These provide craftsman level training to pupils with matriculation or pre-matriculation qualifications. Training is provided in a total of 65 Trades. There are 1887 such institutes of which 224 cater only or partly for women. The intake capacity is 3,27,000 (3,10,000 males and 17000 females).

3. Programmes under Agriculture, Rural Development Labour, Cooperation, Fisheries Departments, etc.

Technical and Vocational Schools

In 1981-82, there were 2087 institutions enrolling 1,63, 564 students in technical and vocational schools run by departments other than education viz. agricultural schools and schools for forestry , fishery , veterinary and animal husbandry , cooperative training, commercial training , music, drawing etc.

II. Non-formal Training

1. Non-formal training programmes are organised both by Government Departments, NGO's and trade and industry . These programmes do not normally insist on minimum educational qualifications except for literacy and numeracy skills .They are job-related but do not lead to a formal diploma. Some of these training programmes have the potential to adopt distance education methods and thus expand their coverage for increasing rural employment. Among such programmes may be mentioned those conducted by Krishi Vigyan Kendras; extension services of Agricultural Universities; TRYSEM; Community Polytechnics; Bharatiya Agro-Industries Foundation; Vigyan Ashram, Pabal; Jnaneshwar Vidyapeeth,Pune; Builders Assocation of India; Shramik Vidyapeeths; Pre-vocational Training for Rural Child Labour run by IIRW, Aurangabad; Training in Khadi & Village Industries.

Agriculture-related Programmes

1. Krishi Vigyan Kendras - These are farm centres run for training and practice of farmers and rural youths. At present, there are 109 functioning Krishi Vigyan Kendras (KVKs) and 75 are in the pipeline. While 65% of the KVKs are run by State Agricultural Universities, 25% are run by voluntary organisations and the rest are managed by ICAR. They are conceived as vocational training centres to impart knowledge and skills to farmers so that they could increase their productivity and efficiency. Each KVK has 50 acres of land to impart training for farmers in agriculture and allied subjects namely sericulture, mushroom culture, dairy farming etc. The duration of the training programme varies from 1 day to three months. The trainees are selected in consultation with the State Departments of Agriculture. They have a strong research support from State Agricultural Universities. Besides there are 9 technical training centres to provide resource support to the professional staff and the KVKs. At present KVKs train about 4,40,000 farmers each year.

Recently, the quantum of expansion of the KVK Programme and its funding was considered by Planning Commission and the view which emerged was as below:-

i) The eixsting 109 KVK's may continue to be funded by Central Govt. on 100% basis but for the new KVK's the State Govt. should provide 50 acres of land and these KVK's should be run either by NGO's or industry. For that purpose efforts should be made to interest Chambers of

Commerce, Industry in general and fertiliser industry in particular to manage the KVK's. In case of new KVK's for voluntary agencies,land and building would be provided by the voluntary agencies as their contribution and recurring cost may be sanctioned as per norms.

ii) The course content of the training programme of KVK's should be revamped so as to incorporate new thrust areas, region-wise and crop-wise.

iii) The ICAR should conduct evaluation to examine the impact of KVK's with regard to the increase in the productivity of land in the areas of influence of KVK's.

2. Agriculture Universities - Agricultural universities have their own arrangements for training of farmers apart from KVKs. e.g. Punjab Agricultural University, Ludhiana runs a variety of courses like bee-keeping, fishery, poultry, etc. There are also courses for export-oriented market e.g. food processing, cut-flower cultivation etc. There are year long correspondence courses for small and marginal farmers, one-year certificate courses in home science for young women and short courses for sons of farmers having elementary education. A variety of materials is used: print materials, audio cassettes, video cassettes, etc. Audio cassettes cost Rs.5 per cassette and the monthly magazine describing seasonal calender of agriculture activities costs Rs.2 per issue. There is a network of young farmers' clubs (Naujawan Kisan Santhas) for seed cultivation and distribution.

3. Bhartiya Agro-Industries Foundation(BAIF) - BAIF is an NGO based in Pune with 3 campuses for animal sciences, agriculture and agro-forestry, and appropriate technology, energy and human health. The BAIF Information Resource Centre set up in 1989 provides information in diverse areas covering crafts, agro-forestry, animal health, appropriate technology, human community health, dairy cattle production, renewable energy, post-harvest technology, rural development and sericulture. The Information Resource Centre holds not only books and periodicals but also audio visuals, maps and brochures and pamphlets. The BAIF treats training and education as an integrated whole. It provides training for self-employment as well as training for crop and animal husbandry activities. It focusses on livelihood education in the tribal areas where it teaches tribals about wasteland cultivation and it has done impressive work in this regard in the tribal areas of Gujarat. The training is modular in terms of subject areas and in terms of sequence. The training is short, field centred and places a heavy emphasis on use of media and pictures rather than words. It also operates a special training programme for drop outs. It has been observed that training cannot be successful unless post-training support is provided by way of product design, entrepreneurial development programme and training in marketing. BAIF also provides information services packaged for use of trainers rather than researchers.

Small Industry Related Programmes

1. Training of Rural Youths for Self-Employment(TRYSEM)

The scheme was launched by Government of India in 1979 as a facilitating component of Integrated Rural Development Programme (IRDP). The strategy of the Programme is to put identified youths through a period of training with the training institutions or master craftsmen to provide necessary technical and entrepreneural skills and, on the successful completion of training, to provide a combination of subsidy and credit under IRDP for acquisition of income generating assets. The programme heavily focusses on the rural poor with 40% reservation for women, 50% for SCs/STs and 3% for physically handicapped with preference being given to adult male literates under the NLM. There are no educational qualifications. Minimum age for providing training under TRYSEM is 16 and the opper age limit is 35 relaxed to 45 in case of widows and freed bonded labourers, freed convict persons, leprosy-cured patients, project affected persons etc.. A free tool kit costing not more than Rs. 600 is given in kind to the trainee during the course of training. A sum off Rs.100 per trainee per month is payable to the training institution for the duration of the training. An amount of Rs.75 pper trainee is payable to a craftman per month as an honourarrium. On completion of training, the trainee is subjectted to a performance test. The present coverage of rural youuths for training under TRYSEM is 2 lakhs per annum but from 1991-92, this is being stepped up to 4 lakhs youth per year...

2. Community Polytechnics(CPs)

Under this scheme started in 1979, polytechnics are selected to act an focal points to promote socio-economic upliftment and qualitative improvement in the life style of the rural community with emphasis on poverty alleviation and employment generation particularly for the under-privileged and the disadvantaged. The CPs carry out ativities like manpower development and training, technology transfer and technical and managerial support services relevant to the local needs. R&D support is being provided by 15 Centres for Development of Rural Technology. A National Expert Committee which appraised the scheme recently noted the impact and recommended its continuance and expansion. Upto the end of 1990-91, 159 CPs were functioning through which about 1,60,000 rural youth were trained and over 50% were absorbed in self/wage employment. It is proposed to ocver all approved polytechnics (about 500) under the scheme by the end of 8th Plan.

3. Vidnyan Ashram, Pabal

Vidnyan Ashram, Pabal, District Pune, is a Centre of the Indian Institute of Education, Pune. Its innovative programmes emphasise science and technology for rural development and the successful technologies evolved by this Centre are built into the school-curriculum at the secondary stage. Besides, it trains out-of-school children and youth, artisans, farmers and rural women in rural technology. Its work has made a significant contribution to building a rural

base for need-based vocational training. The mian ingredients of the experiment are:

- There is integration of education and development.
- The emphasis is on intellectual stimulation rather than on rote learning
- The work is multi-scale
- It has taken up themes of all India relevance like environment.
- Its emphasis is on full utilisation of whatever equipment was available. The cost was very modest namely Rs.50 per year per student for material within an overall per capita cost of Rs.290 per year. As a by- product, the equipment also served to build assets for the villages. In terms of student time, only one day out of a week was used.
- It provides strategic service to the villagers in a variety of fields: for example clinical (blood and urine tests, irrigation (water) finding) etc.
- The work had a spin-off effect. Its ex-students have set up additional workshops. Water prospecting implements were available in abundance.
- It has proposed a kit costing Rs.40,000 for pre-vocational courses of the SCERT in

Maharashtra and the scheme is likely to be sanctioned during the 8th Plan.

4. Dnyaneshwar Vidyapeeth

Dnyaneshwar Vidyapeeth, Pune, may be referred to as an example of an open, non-conventional, educational institution which imparts technical education in a cost effective manner. It takes the help of existing education institutions to conduct its classes and enters into arrangements with the industrial establishments in the vicinity to conduct practicals and has invested very little in construction of buildings and purchase of plant and equipment. The Vidyapeeth is able to impart quality instruction in engineering sciences at degree level and its products have been accepted by the job market.

5. Builders' Association of India

The Pune Branch of the Builders Association of India has been running several job oriented courses for school drop-outs in cooperation with the civil engineering wing of Jnaneshwar Vidyapeeth. Apart from degree and diploma courses the courses are (1) Surveyor Course (4 months) (2) Ferrocrete Technology (2 months) , (3) Fibre Reinforced Glass Course (2 months) , (4) Building Supervisor Course for SSC Students (1 Year). This last course is very popular with an intake of 40 - 60 per year . This is an example of what in foreign countries is called "co-operative training" arrangement and the open education system would serve to make them more effective and popular.

6) Shramik Vidyapeeths

Shramik Vidyapeeths (SVPs) have been imparting to urban workers in the organised sector and their dependents simple vocational skills. There are at present 36 SVPs of which 25 are under voluntary agencies and remaining under universities and State Govts. The programme was reviewed by the Prayag Mehta Committee (1985-86) and by a departmental expert Committee (1990). The Expert Committee, keeping in view the important role assigned to the SVPs for promotion of post-literacy and continuing education in urban and industrial areas, recommended their continuance and expansion during the 8th Plan. The Expert Group has suggested the following objectives for the Shramik Vidyapeeth: conduct of socio-economic surveys, promotion of literacy, conduct of continuing education, promotion of vocational skills, cultural avenues, cooperative societies, youth clubs, Mahila Mandals etc. The Expert Group has suggested net-working of SVPs and provision of a strong resource support.

7) Pre-vocational Training for rural Child Labour run by Indian Institute of Rural Workers, Aurangabad: This project of pre-vocational school with the support of Labour Ministry (75% grant) is conducted in an agricultural firm situated near Industrial Estate, Waluj near Aurangabad in Maharashtra. About 100 children in the age-group 7-13 in the near by villages attend the project school. Most of them are drop-outs and hence they are given general education upto Standard IV as well as vocational training in domestic electric wiring, basic tailoring etc. for 2 years. The experience

shows that they learn very fast and when they leave the project, they are potential semi-skilled workmen with good primary education who can enter the world of work for self-employment with confidence. Some of them continue their education in the secondary stream. The timings of the project school are 8.30 a.m. till 4.30 p.m. . The children are given nutritious food and uniforms. They are also taught personal and community hygiene, P.T. and Drill. Artistic aptitude of the children is also nurtured. An intersting feature of the project is that the project gives a stipend (Rs.2 to Rs.3 per day) to every trainee child for the work done by them. It has been found by project authorities that if the mothers of children are simultaneously trained, both can benefit and smoothly start a small business with a loan from the bank.

The project has not made use of distance education methods but can do so.

8) Training in Khadi and Village Industries

Formerly there were only 25 village industries in the list of Khadi and Village Industries Commission which is the nodal agency for implementation of village industries programme in the country. Now this list has been increased to 96. Some of the modern industries like electronics have also been added to the list. This shows that there is a great scope for educated unemployed in the villages to go for village industries sector. The main problem before the rural artisans is the facility of training for acquiring the skills. At present very few training programmes are

conducted by Khadi & Village Industries Commission and the respective State Khadi & Village Industries Boards. However, these facilities are very inadequate and they are unable to cater to the training needs of the artisans. The Open Education System could utilise the existing institutions like Agricultural Universities, Krishi Vigyan kendras, Agricultural Schools,Gram Sevak Training Centres , Farmers' Training Centres, Industrial Training Institutes etc. for conducting such training.

The Open Education System could coordinate such training activities and arrange for trainers' training with the help of State Khadi & Village Industries Boards. There is need to take Video films of each industry in which the skills and the marketing aspesct will have to be demonstrated. At present the artisans are facing the problem of marketing of their products. The open education system through such video tapes can conduct the training of artisans in the marketing. Khadi & Village Industries Commission and some of the States Boards have prepared such video tapes which can also be used in the open education system.

EDUCATIONAL SCENARIO IN MANIPUR STATE - ROLE OF OLS*

1. Growth of Education

1.1 There has been a phenomenal expansion in the number of institutions and student enrolment in Manipur during the last four and half decades - from 278 Primary Schools and 13 Junior High Schools in 1947 to 3,225 Primary Schools and 687 Junior High Schools in 1991 and enrolment of students from 25,400 in Primary and 1,360 in Junior High schools in 1947 to 1,87,846 and 75,100 in Primary and Junior High Schools respectively in 1991. According to Educational Survey of 1986, 91% habitations have Primary Schooling facilities within a radius of 1 km and 97% population is served by them. At Junior High School level habitations covered within a radiu of 3 kms are 58% and population served is 80%.

1.2 Similar growth has taken place in case of High Schools, H.S.S. and Colleges. There were 6 High Schools and one College in 1947 and the number has risen to 394 High Schools, 27 Higher Secondary Schools and 49 Colleges in 1991. Manipur has got a separate university of its own. Enrolment at Higher School level was 1,14,980.

1.3 The over-all literacy rate in Manipur is 60.96 as per 1991 Census. The Gross Enrolment ratios of 6-11 age-group is reported to be 112.30 whereas from 11 to 14 age group, there is a sharp decline to 66.80 per cent.

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*Source - Report of the Education Commission, Manipur,1991

2. Problems and Issues

2.1 Nearly 70% students drop out by the end of class V and 74% by the end of Class VIII. In the District Council Schools, the incidence of drop out is very high - in Tamonglog. Sadar Hilss and Chandel Districts, out of 100 students who joined Class 1A/1B in 1986, only 3 students remained by the time, they reached Class V.

2.2 The pass percentage at the HSLC Examination during the last five years has varied between 26% to 39%. There are large number of high Schools giving 0% result. Distrctwise, Ukhrul, Churachandpur, Temenglong and Sadar Hills have been showing poor results. There is a large incidence of failure in subjects like Science, Mathematics, Hindi and English. Qualitatively only 1% of the successful candidates secure 1st Division.

In Higher Secondary (1991) only 38 out of 1,048 successful candidates got first division. There was no First Division among successful candidates of Arts and Commerce Stream.

2.3 The percentage of untrained teachers at various stages is as under:-

Primary	-	43.20%
Upper Primary	-	62.51%
Secondary	-	69.13%
Higher Secondary	-	56.22%

2.4 Qualificationwise, about 4472 teachers - 40% of the total Primary Teachers - are under matric.

Education and Work

2.5 The per capita income of the State is Rs.1085/- as against national average of Rs.1536/- in 1980-81. As against 1.7% of the population being job-seekers on the live register of Employment Exchanges on an All India basis the proportion of job-seekers on the live registers in Manipur is 7.9% i.e., 2.52 lakhs. According to one estimate by 2000 A.D., the number of job-seekers will be 4.82 lakhs in the State.

2.6 The Sixth and Seventh Plans of the State envisaged vocationalisation of Secondary Education but no progress was made in this direction.

2.7 The draft Eighth Five Year Plan of the State envisages major thrust in generation of productive employment opportunities through integrated area planning. Some of the sectors having potential of employment are Handicrafts, Agro-Industries, Fisheries, fruit preservation, power loom-weaving, textile designing etc.

3. Prospects and Future Directions

3.1 Keeping in view the enormity of educational problems in the State, the Government appointed an Education Commission in February, 1991 to suggest measures for rationalisation of management structures, improvement of quality of education and reviewing of service conditions of teachers. Report of this Commission is now available with the State Government and a Task Force is being constituted for implementation purposes. Action is being initiated to rationalise salary structure, recruitment, service conditions and revamping of Teacher's Training Programmes.

3.2 Techno-academic support system is being reorganised by opening Second D.I.E.T and proposed strengthening of SECRET, College of Education and P.G. Department of Education in the University.

Vocational stream is being contemplated at +2 and college stage.

4. Possible Areas of Intervention through OLS

4.1 Keeping in view the past experience, inadequate infrastructural facilities, spatial distribution of population, conditions of deprivation and large number of intended beneficiaries, following critical areas of educational development will require supplementation of traditional "face to face" approach with OLS.

(a) Upgradation of qualifications of teachers;

(b) Pre-service Training of untrained teachers;

(c) In-service Training of teachers both in content and pedagogy; and

(d) Employment oriented programmes.

4.2 In the contextr of priority being accorded to OLS in the Eighth Plan, it will be desirable to develop a substantial programme of OLS in the State of Manipur. Most of the N.E. STates are facing similar problems and a successful programme will have far reaching effect in other STates also.

4.3 Setting up a group of following Institutions may be considered for developing time-bound Action Plan:

1. University Grants Commission (UGC);

2. Indira Gandhi National Open University (IGNOU);

3. National Open School;

4. Y.B. Chavan Maharashtra Open Universsity, Nashik;
5. National council of Educational Research & Training (NCERT);
6. National Institute of Educatiomal Planning & Administration (NIEPA);
7. Ministry of Human Resource Developmemt; and
8. Planning Commission.