STATISTICS, MONITORING AND EVALUATION OF EDUCATION AND RELATED SECTORS

REPORT OF
THE EIGHTH PLAN WORKING GROUP

Set up by
Planning Commission in connection with the
Preparation of Eighth Five Year
Plan (1990-95)

April, 1989

WORKING GROUP
ON
STATISTICS, MONITORING AND EVALUATION
FOR EDUCATION AND RELATED SECTORS

REPORT

CONTENTS

CHAPTER - I

INTRODUCTION

1.1   The Planning Commission,   in the context of the
formulation of the Eighth Five Year Plan (1990-95) constituted a
Working Group on Statistics,   Monitoring and Evaluation of
Education Sector (including Arts, Culture, Youth Affairs and
Sports)vide order No.M.-12016/88-Edn. dated August 16,1988. The
terms of reference of the Working Group were as under:

   i)   To take stock of the present position in respect of
         planning/monitoring/evaluation/statistical data - base
         arrangements in the State and the Centre and National
         Policy levels by the end of Seventh Five Year Plan.

   ii)   To make suitable recommendations for building up a good
         Management Information System with adequate provision
         of qualified and trained staff and modern equipmenmt
         including Computers at all levels in the States and
         Centres for undertaking the work of collection of
         statistics, monitoring and concurrent evaluation for
         purpose of Eighth Plan.

   iii) To suggest ways and means for avoiding duplication and
         building - up of an integrated statistical system in
         the field of education.

   iv)   To suggest areas/schemes/programmes requiring external
         evaluation on priority basis and identify agencies for
         the same. To suggest procedures for establishing links
         between monitoring, internal evaluation and external
         evaluation and for ensuring that results of external
         evaluation serve as inputs for purposes of correction/
         modification/elimination of programmes and schemes.

   v)   To consider such matters as the Chairman considers
         relevant for the purpose of development of a strong
         system of statistics, Monitoring and Evaluation in the
         sector in the Eighth Plan.

   vi†   To formulate proposals for the Eighth Five Year Plan
         (1990-95) in the light of the above perspective
         indicating priorities, policies and financial costs.

1.2   The composition of the Working Group is given in
Annexure I of this report.

1.3   The Working Group held four meetings on October 24,
1988; November 4, 1988; April 12, 1989; and April 20, 1989. In
addition, the Sub-Committee set up by the Group to prepare draft
report also met on November 22,1988.

1.4   In course of its deliberations, the Working Group
considered reports of various Committees, Groups, Task Forces

etc. on Statistics, Monitoring and Evaluation and its Members prepared discussion papers on various themes relevant to the terms of the reference of the Committee. A list of these papers, reports and various documents is given in Annexure -II.

1.5   The Group, after making a comprehensive review of the existing systems of statistics, monitoring and evaluation in the education sector has made number of suggestions for improvement and development of an Integrated Information System for Educational Management. While making these recommendations, the Group has also taken into consideration the multi-level structure for educational planning and administration as envisaged under the National Policy on Education (1986) and its Programme of Action. The observations and recommendations of the Group have been presented in this Report under the following Chapters:

- Review of the Existing Information Systems in Education.

- Suggested Framework for Integrated Educational Management Information System

- Suggested Framework for Monitoring and Evaluation of Educational Programmes.

- Information System for other Related Sectors.

- Infrastructural Requirements.

1.6   In view of the wide coverage and limited time, the Group restricted itself to discussions on processes, organisational framework, flow, coverage, gaps and related areas. About the various forms for collection and compilation of information, the Group suggests that a separate Expert Committee may be constituted to make a thorough analysis of the information requirements needed in planning and management. Such a system should be amenable to computerisation as well as manual operation.

1.7   The Group acknowledges with thanks the assistance rendered by the various Departments of the Ministry of Human Resource Development and other agencies for providing relevant information and other material needed by it from time to time. Thanks are also due to NIEPA for providing academic and secretarial assistance to the Working Group.

1.8   The Working Group submits its report to the Planning Commission for acceptance of the recommendations made therein. In addition to making suitable provisions in the 8th Five Year Plan of the Centre and the States for implementing these recommendations, the Group suggests that the Planning Commission and the Ministry of Human Resource Development may take immediate follow-up action particularly on recommendations where no financial implications are involved.

CHAPTER II

REVIEW OF THE EXISTING INFORMATION SYSTEMS IN EDUCATION

2.1   The Working Group, while reviewing the existing system of statistics, monitoring and evaluation in the education sector, found that there is no integrated information system rather several almost parallel systems are operating to meet the information needs of various administrative functions. Under most of these systems, data are collected on similar items by different agencies. The ultimate sufferer is the institution as it has to supply information to all the agencies. In a study conducted by the National Institute of Educational Planning and Administration, in one of the States of the country, namely Haryana*, it was found that at the Institutional level, every year different types of schools have to fill in numerous types of forms as shown below:

Type of School	Forms/pages filled every year	
	Number of Forms	Nnumber of Pages
1. Primary School (I-V Classes)	63	1,731
2. Middle School (I-VIII Classes)	98	4,508
3. High School (I-X Classes)	140	7,123
4. Higher Secondary School (I-XII Classes)	203	12.116

2.2   One can well imagine the plight of the teachers, particularly in primary and middle schools who are not provided with any clerical assistance but have to fill in about 1700 pages in a primary school and about 4500 in a middle school every year. In other words, a teacher has to fill up about 12 pages per day in a primary school and 30 pages in a middle school.

2.3   In the same study, a similar analysis has been made for area level officers of the Education Department. It reveals that about 10,000 pages are filled in every year in a Block Education Office, about 29,000 pages in a Sub-divisional Educational Office and 62,000 pages in a District Education Office. In all these offices, about one lakh pages of various forms are filled in every year i.e. about 300 pages per day. With this quantum of office work, the area level officers are left with little time to perform other administrative and academic functions.

---

*   Forms Design and Control in Educational Administration; NIEPA, New Delhi: October, 1986.

2.4   The Working Group also took note of the following findings of this study:

- The number of forms is increasing year after year

- Some forms get out-dated with the passage of time but continue in circulation.

- Most of the forms have not been reviewed and contain number of out-dated columns/information.

- There is lot of duplication in collection of information on same items.

- The coverage and frequency of various forms is not in tune with the requirements of various levels.

- For want of space and lack of storage facilities there is no system of keeping record of these forms.

- There is lack of accuracy and reliability in information collected through these forms.

2.5   Inspite of such a large number of forms, the Group found that the information is not available to the decision makers in education at the right time and in the right form. The time lag especially in case of statistical information runs into years particularly at the national level. To make an in-depth study of this problem, the Working Group reviewed the following main systems of data collection in the education sector:-

a) Statistical Information System;

b) Information System for Budget and Accounts;

c) System of Information for Routine Administration;

d) Plan Information System; and

e† Information System for Monitoring and Evaluation.

A.   Statistical Information System

2.6   Of all the systems, this system is well established with large network at centre, state and lower levels of administration. Most of the states/UTs follow the proformae prescribed at the national level for collection and compilation of educational statistics from the primary sources. It is mainly geared to meet the national and international requirements of statistics. Under this system, data are collected from all types of government and non-government recognised educational institutions within and outside the jurisdiction of the education departments.

2.7   The Department of Education of the Ministry of Human Resource Development at the national level and education departments at various States/UTs levels are primarily responsible for this system of statistical information. Data on education is also collected from educational institutions by the University Grants Commission (UGC) and the NCERT. The UGC collects information every year directly from universities and colleges on census basis whereas the NCERT collects some data on school education as a part of All India Education Surveys which are generally conducted once in five to eight years. In addition, there are some other agencies which generate educational data at the national level e.g., Registrar General (Census), National Sample Survey organisation (NSSO), Directorate General of Employment and Training, IAMR, etc. These agencies generally supplement the data collected by the Ministry of Human Resource Development.

2.8   The Working Group briefly studied the system of educational statistics of the Ministry of H.R.D., UGC, IAMR, and the NCERT and made the following observations:

Issue of Coordination

2.9   The major problems with the system of educational statistics in India in that of lack of coordination among various agencies collecting, compiling and publishing data at state and national levels. In case of higher education, the group noticed that both the Ministry of the H.R.D. and U.G.C. used to collect data till recently. However, the Group was informed that to overcome this problem a decision had already been taken by the Ministry in consultation with the UGC for complete transfer of system of collection of statistics on higher education to the UGC with effect from 1987-88. The Group welcomes this decision and suggests that it may be implemented without any further delay. It is suggested that the UGC may compile and tabulate data with state-wise break-up so that it may also be published as a part of the Ministry's annual publications on educational statistics. This would enable the users to get data on all sectors of education in the country at one place. The UGC may however continue to have its own publications as per its programme. The Group also suggests that similar arrangements may be made between universities and departments of education in various State/UTs. Every University should develop a comprehensive MIS for its affiliated institutions and supply requisite data to various departments, agencies and organisation at State and National Levels. The present system of collecting data directly from such institutions by State and National level departments/organisations may be rationalised.

2.10   The main objective of All India Educational Survey is to provide information needed for policy, planning, monitoring and evaluation of the education system and generally not covered under the annual statistical system. But the Working Group observed that :

i) Most of the data collected through these these surveys overlap with the existing statistical system of data collection.

ii) While deciding about the coverage of data under surveys systematic efforts are generally not made to assess the needs of users of educational data.

iii) Surveys have not been made or accepted as regular feature of education sector. Further they are not organised on regular intervals e.g., there is a time gap of 5 to 8 years among various surveys.

iv) There is no regular staff for conducting surveys and making detailed analysis of data. Soon after the survey is finalised the field survey units in various States/UTs are abolished. District level data is generally not properly maintained and used for school mapping and micro level planning.

v) The survey is primarily conducted on census basis and the sample survey techniques are generally not made use of.

2.11 In the area of technical education, at present the following three national level agencies are collecting data on technical education without any effective system of coordination:-

i) National Technical Manpower Information System (NMIS) under the Institute of Applied Manpower Research for engineering colleges and polytechnics;

ii) Technical Educational Division of the Ministry; and

iii) Statistical Division of the Ministry.

2.12 Of late, some of the other Divsions of the Ministry have also started developing their own information systems especially in the areas of elementary and non-formal education. Group feels that if steps are not taken to coordinate such acitvities at the national level, such systems and structures will percolate at state and lower levels where there is already lot of overlapping and multiplicity of forms and agencies collecting data on almost similar items.

Issue of Time Lag

2.13 The other main problem with the statistical information system is the huge time lag both in the collection and publication of data by the Ministry at the National Level. Though the Statistical Division of the Ministry has made appreciable efforts in bringing out provisional data on a few items in its annual publication 'Selected Educational Statistics' for 1986-87, and for 1987-88, (it is under publication), but the

position with regard to publication of final and detailed data required for planning purposes is not so favourable. So far the Ministry has brought out Education in India (Vol.I) for 1982-83 and Education in India (Vol.II) for 1979-80. Inspite of the best efforts made by the Statistical Division of the Ministry, data for 1981-82 has not so far been received from 5 States in form ES-II from 11 States in form ES-III and 7 States in form ES-IV. This unusual delay has reduced the utility of data on the one hand and led to development of parallel systems of data collection on the other. The following are some of the important factors responsible for time lag as identified in this status paper prepared by the Ministry for discussion in the Working Group :

i)   Large number of educational institutions i.e., data to be collected nearly from 7 lakh institutions;

ii)   Inadequate statistical machinery at centre, state and district levels and almost total absence of any such staff at block level;

iii)   Limited use of computers particularly at state level;

iv)   Lack of cooperation from institutions not under the administrative control of the State Education Department e.g., institutes of engineering, medical, agriculture etc.;

v)   Delay in printing of forms and performae for data collection at different levels;

vi)   Delay in reconcilation of data between central and state statistical units; etc.

2.14   One of the main objectives of revision rather over-simplification of the system of data collection in 1976-77, was to reduce the inherent time-lag prevalent in the old system. But the Working Group feels that this 'revision' could not achieve the desired objectives particularly in case of data on financial and examination results.

2.15   So far UGC is concerned, it has a centralized system of collection of data directly from the basic reporters and time-lag generally is not more than one to two years. However, the UGC also faces many problems in data collection. Despite various reminders followed by occasional visits about 15 per cent of the institutions do not send their information timely and this problem is mostly in case of affiliated colleges. The Group has also observed that bulk of the statistical information (70 per cent to 75 per cent) collected by the UGC is not compiled because of shortage of manpower. It is hoped that the computerization of data would solve this problem.

Data Gaps

2.16   The Group discussed at length various gaps in coverage and contents in the present system of educational statistics particularly in view of special requirements for planning and implementation of the National Policy on Education, 1986. Though, it covers all types of educational institutions spread over various departments, institutions imparting training, un-recognized institutions, correspondence courses and non-formal education centres are not systematically covered by it. On content side also it does not provide for data on achievements and age-wise distribution of pupils, wastage and stagnation, planning and administration, etc. The Group was, however, informed by the representative of the Department of Education that recently, it had brought out data on Correspondence Courses and Non-formal Education at Higher Level. The Group suggests that such data should be regularly collected as a part of annual statistics.

2.17   The Group while appreciating everybody's concern and efforts for extending coverage of educational statistics, suggests that before taking any such decision, the data already being collected by various agencies should be carefully studied as it can provide data on most of the indicators for policy, planning and monitoring of the system. Just for introduction of some sophisticated indicators which can otherwise be avoided, we should not burden the basic reporters i.e. institutions with a large number of forms.

Organizational Problems

2.18   The Working Group reviewed the organizational arrangements concerning educational statistics and made the following observations:

   i)   There is acute shortage of staff at different levels for statistical work. The existing statistical machinery is not adequate to cope with the increasing workload. Most of the states do not have sufficient statistical staff at state and district levels. At block level, except one or two states there is no statistical machinery.

   ii)   At state level, all states/UTs have separate staff for statistics but only a few states have separate staff for planning purposes. In such states, the work of educational planning is the responsibility of the statistical, administrative or budget section. In states/UT where planning work is not assigned to the statistical unit, the system of coordination between statistics and planning is not adequate.

   iii) There is a lot of controversy as to whether the statistical units should be manned by trained personnel belonging to the 'Statistical Cadre', 'Teaching Cadre'

or 'Clerical Cadre.' Different states have worked out different types of solutions which in most of the cases have not resulted in the improvement of statistical work.

iv) Printing, distribution and collection of statistical forms wherever centralized have led to wastage of time and money. There is already shortage of statistical personnel and these non-statistical activities take most of their time.

v) With the increase in number of Directorates of Education in states/UTs, the problem of locating statistical unit is becoming increasingly difficult.

vi) In most of the states/UTs the statistical staff is not adequately qualified and trained. Their frequent transfers also create problems. In many states apathy on the part of the statistical staff is not uncommon because of the low priority given to the statistical work and its non-involvement with the process of planning and management. Most of the state governments do not have a clear-cut policy for recruitment and cadre development for staff entrusted with statistical work in the education departments at different levels.

Other Issues

2.19   With regard to Computerisation of educational statistics, the Working Group feels that considerable ground work needs to be done. Efforts will have to be made to develop comprehensive data base to meet the information requirements of policy, planning, monitoring, evaluation and administration at various levels in a multi-level framework of planning and administration envisaged under the National Policy on Education (1986) and its Programme of Action. Some of the states have managed to get computer facilities but are not able to utilise the same for want of trained personnel.

2.20   The Working Group also took note of the "Pilot Project on Computerisation of Educational Statistics" undertaken by the Statistical Wing of the Ministry in the State of Uttar Pradesh. Through this project, the Ministry has demonstrated that the existing time-lag in collection and compilation of educational statistics could be considerably reduced by introducing computers in the field of educational statistics. Encouraged by the success of this Project, the Ministry has introduced a Centrally Sponsored Scheme on "Computerisation of Educational Statistics". For successful implementation of this scheme at State/UT levels, lot of preparatory work needs to be done at the national level. Moreover, any effort by the Deptt. of Education for computerisation of educational statistics will have to be linked to the national system of computer network down to district level as envisaged by the National Informatic Centre.

2.21   The Working Group has also noted that every agency involved in collection of data at the national or state levels has a tendency to evolve its own concepts and definitions resulting into total confusion for both the reporters as well as the users of data. The manual prepared by the Ministry on "Concepts and Definitions in Educational Statistics" is generally not followed by the Departments/Organisations involved in collection of data on education.

2.22   The Working Group has observed that at present greater emphasis is laid on routine work of collection, compilation and publication of educational statistics and limited work has been done on advance analysis, projection and forecasting techniques, development of indicators etc.

2.23   The Working Group also observed that information on most of the items can easily be collected on sample basis, almost all the agencies concerned with educational statistics adopt census method of data collection. Sometime back the Ministry took some interest in developing various sampling techniques applicable to the field of educational statistics but no concrete results seem to have emerged out of these efforts.

B.   Information System for Budget & Accounts

2.24   The Working Group did not make an extensive review of the information system for budget and accounts which can be considered as one of the most efficient and standardised system followed not only by the education sector but by all other sectors of the government. In such states where the system of performance budgeting is followed, monitoring of physical and financial aspects of various programmes and schemes becomes an easy task. The Working Group, however, observed that due to certain variations in concepts and definitions, the financial data in respect of government institutions collected under this system is not directly used for statistical purposes. The Group feels that, with some changes and modifications in the format and coverage of financial data, this problem can be solved. It would not only reduce time-lag but also improve quality and reliability of financial data.

C.   Information System for Routine Administration

2.25   To meet their day-to-day information requirements, the inspecting, supervisory and administrative agencies in almost all the States/UTs usually collect information on monthly, quarterly and annual basis in traditional types of statements/forms on students,teachers, institutions, expenditure, etc. Generally information is collected on large number of items using numerous forms/statements but information on a few items is utilised and that too as and when required. Most of these statements/forms have been introduced as a result of requirements of some Acts, rules and regulations of the Education Departments. The Working Group observed that unlike Statistical Information System, information collected under this system is reliable, up-to-date

and readily available but generally not published or used for analytical purposes.

2.26   The Group feels that if this system could be combined with the Statistical Information System, and efforts made to evolve a common integrated information system, preferably a computerised one, most of the problems and deficiencies of the statistical information can be resolved. It would not only improve the quality of data but help in rationalisation of large number of forms and reduce the burden on basic reports.

D.   Information System for Planning Purposes

2.27   The Planning Commission has also prescribed statements for collection of some selected information for preparation of annual five year and long-term plans. This is a common system for education as well as all other sectors. These forms are mostly concerned with selected financial and physical aspects of various schemes/sectors. There are also separate forms for collection of information on programmes for backward areas and backward sections of society. To collect information for all these forms, the state governments in most of the cases have evolved their own forms for guidance of various heads of departments and other field officers. So far the expenditure data in respect of various schemes/programmes under plan is concerned, the major source is the system of "Budget and Accounts". However, the Group found that in some of the cases, the budget classification of schemes and their plan classification did not coincide. Sometimes this anomaly results in problems of incorrect reporting of expenditure on various schemes. If improvements could be made in the statistical system and time-lag reduced, it can fulfil the needs of data requirements for policy and planning purposes.

E.   Information System for Monitoring and Evaluation

2.28   Since the First Five Year Plan, there have been system of monitoring and evaluation in the form of preparing Annual Progress Reports, Five Year Plan Reviews, Mid-Term Appraisals, Quarterly Progress Reports, Monthly Progress Reports etc. But introduction of monitoring and evaluation as a separate system in the process of planning, particularly in the sector of education is of recent origin. Several efforts have been made since 1978 to introduce a system of monitoring and evaluation particularly in respect of programmes of adult education and elementary education. With the implementation of the National Policy on Education (1986) and its Programme of Action, need for developing information system for monitoring and evaluation has been felt at all levels of administration. The Working Group noticed that several efforts are going on in the Ministry to develop monitoring and information system for various programmes and schemes. Some of these efforts are isolated from each other and geared to meet the data requirements at the macro levels. What is required is to view the educational system as the main system and its various sectors/programmes/schemes as sub-systems. Any

system of monitoring, evaluation and information should not be developed in isolation but in conformity with and in relation to the main system and other sub-systems.

2.29   The Working Group briefly reviewed some of the information systems especially being developed for monitoring and evaluation in the Education Sector as under:

1.   Adult Education Programme (AEP)

2.30   The Directorate of Adult Education with the launching of a country wide Adult Education Programme 1978-79, introduced a three tier system of monitoring at the national, state and project levels. This system has been in operation for about a decade. The Group was informed that due to considerable misreporting not much reliance could be placed on the data collected under this system.

2.31   As such, for the National Literacy Mission which has been launched recently, it is proposed to introduce a computer based "Management Information System". The idea is to ensure timely and authentic collection of data, flow and utilisation of information, for monitoring and mid-course correction and impact evaluation.

2.32   The main features of the MIS under National Literacy Mission are as under :

   i)   District will be the focal point of planning, monitoring, feed-back and resource mobilisation.

  ii)   Major responsibility for furnishing the information from the field level will rest with the 'Prerak' who will be incharge of Jana Shikshan Nilayam.

 iii)   The Instructor will not submit any report, instead the 'Prerak' will collect it during visit to AECs and through discussion in meetings.

  iv)   The reports to be collected by the 'Prerak' will cover both quantitative and qualitative information.

   v)   The system would help in making an assessment of attainments in literacy by the learners i.e. achievement of targets would not be merely determined on the basis of number of learners but by the number of persons who acquire the minimum competencies in literacy laid down in NLM.

  vi)   The district will be the first level where the data collected from the field will be processed through computer to test its accuracy and authenticity.

----
*   NLM – National Literacy Mission

12

2.33   The Group was informed that, to start with, the computerised   MIS will be introduced in 40 Technology Demonstration Districts and will be gradually extended to others. The Group feels that the experience from this experimental project on MIS would definitely provide basis for introduction of MIS on similar lines for other sectors of education.

2.34   With regard to evaluation of the adult education programmes, emphasis has been laid on developing 'internal' as well as 'external' systems of evaluation.   It has been reported that the information available from the system of monitoring is used by the projects and the agencies implementing the programme to make internal assessment possible. For external evaluation, a number of renowned research organisations have been involved from time to time to undertake periodic evaluation of the ongoing programmes. This system of external evaluation is intended to give credibility to the programme and to help in identifying its strengths and weaknesses.   However, before commencement of the 7th Five Year Plan, the question of associating external agencies for evaluation purposes was re-examined and it was felt after the review that the system of associating external agencies for programme evaluation should be continued.

2.35   The Group, however, feels that in the present system of programme evaluation of AEP there has been undue emphasis on quantitative aspects of evaluation as compared to qualitative aspects.   There is also a general impression that most of the studies conducted so far lack indepth analysis as these are planned and conducted for the sake of completing the studies and meeting the requirements of the Ministry and state governnments. The Group, while appreciating the decision of the Government to continue with such a system of programme evaluation, suggests that efforts should be made to ensure that these studies do not become repetitive and stereo-typed and lay more emphasis on qualitative aspects.   It is also emphasised that system of external evaluation should assume a participatory character so that evaluation does not become a threat but continues to enrich the programme implementation process, as the mechanism of consultation, dialogue, participation promotes this process.

2. Non-formal Education at Elementary Level

2.36   The scheme of non-formal education was introduced during the 6th Five Year Plan in nine educationally backwawrd states as a centrally assisted scheme.   After the National Policy on Education (1986), this scheme was revised for implementation on project basis and its coverage was extended to ten educationally backward states in addition to urban slums, hilly, desert and tribal areas and for working children in all the states/UTs.

2.37   Till recently, it had no structured system of monitoring and evaluation. However, in 1988 at the request of the Ministry, NIEPA developed a system of Monitoring, Evaluation and MIS for NFE. The Group was informed that with certain modifications, the Ministry with the help of Department of Electronics has developed

a computerised MIS which is being field tested as a part of 'COPE' project at NIEPA.

2.38   A comprehensive evaluation of this scheme was undertaken by NIEPA and NCERT at the request of the Ministry of HRD in 1985-86.   On the basis of findings of these studies, the scheme was revised in 1986.   The Group was also informed that a regular system of 'Concurrent Evaluation' on sample basis with the help of external agencies is under consideration of the Ministry.

2.39   The Group suggests that a structured system of monitoring and evaluation, which has already been abnormally delayed, may be introduced for this scheme at the earliest possible.   It is suggested that MIS for NFE may not only take into account requirements of centre and state levels but of operational levels also.

3. Universalisation of Elementary Education

2.40   It was in 1978 that a system of monitoring of enrolment and attendance at the elementary stage was introduced.   The block was the primary unit for collection and compilation of information.   The returns received from the blocks used to be processed at the national level on computer with the help of National Informatic Centre in collaboration with the NCERT.   This system did not function due to heavy non-response from large number of schools/blocks.

2.41   With implementation of NPE and its Programme of Action, the Ministry of HRD has again taken steps to evolve a system of monitoring in which emphasis is being shifted from collection of information on enrolment to retention of children, regularity of attendance and their levels of achievement.

2.42   In pursuance of the National Policy on Education, NIEPA has also prepared 'Guidelines for Micro-Level Planning for UEE' in which certain formats have been suggested for developing monitoring system for UEE at local levels both for formal as well as non-formal systems of education.

2.43   The Working Group suggests that instead of developing separate systems of planning, monitoring and MIS for UEE and NFE, efforts may be made to develop an integrated system for meeting all these requirements.   This system should be very simple and geared to meet requirements of monitoring of UEE at local levels. On the basis of information gathered through such a system, certain indicators can be developed at the national level.

4. Minimum Needs Programmes (MNP), 20 - Point Programme etc.

2.44   The Education Division of the Planning Commission monitors progress of elementary and adult education under MNP through Quarterly Progress Reports received directly from

States/UTs. Though the proforma is a simple one but the problem of non-response is very acute.

2.45 In addition, there is also a system of monitoring of various schemes of education under 20 Point Programme. But this system also suffers from the similar problems, as that of monitoring of programmes under MNP

2.46 Apart from these, every state has developed its own system of Monthly and Quarterly Progress Reports to monitor all plan schemes for its Planning Department.

5. Centrally Assisted Schemes of the Ministry

2.47 Department of Education of the Ministry of HRD has got a number of schemes under education sector where financial assistance is released to States/UTs. So far monitoring system for these schemes has been either developed or is in the process of development in respect of the following :

    i)   Non-formal Education;
   ii)   Operation Blackboard;
  iii)   Teacher Education;
   iv)   Educational Technology;
    v)   Integrated Education;
   vi)   Vocational Education;
  vii)   Science Education;
 viii)   Environmental Orientation;
   ix)   Rural Functional Literacy Projects;
    x)   Strenghthening of Administrative Structures; and
   xi)   Border Area Development Programmes.

2.48 In addition, proformae have also been developed for monitoring of 'Educational Development of Scheduled Castes and Scheduled Tribes'. Bureau of Technical Education of the Ministry has also evolved separate monitoring system for a number of its major schemes/programmes.

2.49 It has been observed that in most of the cases, response rate is either 'nil' or very low. The Group feels that the existing practice of introducing separate information systems for monitoring of various schemes needs to be looked into carefully and in a pragmatic way. Over-reporting and overlapping in the system of monitoring may cause confusion and tend to become counter-productive.

SUGGESTED FRAMEWORK FOR EDUCATIONAL MANAGEMENT INFORMATION SYSTEM

3.1   In the light of the urgency of having an integrated framework for educational management information system the Working Group is of the opinion that an Integrated Educational Management Information System (EMIS) may be introduced at all levels of educational administrative set-up to meet the information requirements for performing different functions of planning, management and monitoring implementation of various programmes under National Policy on Education (1986). It would also provide basis for introduction of a decentralized system of educational planning and management in a multi-level framework as envisaged under the National Policy on Education and its Programme of Action. Such a system could also be seen as a pre-requisite for computerization of information and introduction of computer net-work at the district level by the National Informatic Centre for development of District Information System to meet the information requirements at District, State and National Level(DISNIC).

A.   Guiding Principles

3.2   For evolving such a system, the Group suggests that the following principles should be kept in view:-

   i)   The existing separate systems of collection of information for planning, statistics, monitoring, evaluation, administration, etc. should be integrated at all levels. A single agency should be identified to take the responsibility for collection and compilation of core data as per requirements of a particular sector of education. This data should flow vertically and branch off horizontally to meet the requirements of users within and outside the educational administrative set-up. The basic reporters should, however, be required to submit information to a single identified agency so as to avoid any duplication or overlapping at the time of data collection.

   ii) In designing such a system, agencies responsible for its development and maintenance, and the user organisations should be actively involved. In addition, the field level functionaries should also be associated.

   iii) While deciding the coverage of items on which information is required, the principle of judicious use should be strictly followed. The frequency and coverage of information should also be in accordance with the needs of different levels of administration.

iv) The system, once introduced, should be periodically reviewed i.e. about once in five years in terms of its coverage, contents and flow.

v) The information system should be very simple in its design, contents and coverage. The proforma for data collection should be simple enough to be easily understood by the basic reporters without any special guidance or help.

vi) The coverage of the information system should be both quantitative and qualitative. This information may be reported in codified as well as in descriptive form.

vii) The MIS should simultaneously ensure flow and feedback of information.

viii) In order to avoid flow of repetitive information, data banks based on 'Individual Data System' should be established at all levels of administration.

ix) Timely reporting should be considered as more important than absolute accuracy, particularly at higher levels of monitoring and administration.

x) To meet the requirements of monitoring, the MIS should be 'problem oriented' instead of just 'performance oriented'. In other words, it should anticipate and highlight major problems and bring them to the notice of the decision makers well in advance so that corrective measures could be initiated in time.

B. Suggested Outlines for the Proposed EMIS

3.3 Because of time constraints, it could not be possible for the Working Group to suggest a detailed operational plan for introduction of EMIS for various sectors of education. However, the following framework is suggested for development of such systems :

1. Coverage of Institutions

3.4 The Group had an extensive discussion on coverage of unrecognised institutions under the MIS as a large number of such institutions in the name of English Medium Schools, Evening Colleges, Commercial Training Institutes, Computer Training Centres, etc., have come up in almost all parts of the country. Especially at the primary level of education, the so-called 'English Medium Schools' cater to a substantial chunk of school-age population. After discussing the problems relating to definition of such institutions and ensuring regular submission of information by them, the Group made the following suggestions:

i)   All recognised institutions both under formal and non-formal systems of education may be covered under the MIS.

ii)   It is desirable to introduce a system of compulsory registration for all unrecognised institutions which provide any type of education on regular basis.   Some of the States have Private Institutions Regulation Act .   Such acts may be introduced in all the States for making compulsory registration of all   these institutions a statutory condition.   But distinction must be made between 'Registered Institutions' and 'Recognised Institutions'.   This distinction   is necessary because some of the institutions which have been denied recognition by the educational authorities on academic grounds, may use the word 'Registration'for 'Recognition' to mislead the public.   As a safeguard, it should also be made compulsory on part of such institutions to clearly write 'un-recognised' wherever they use the word 'Registered' with their name.

iii)   It may not be feasible for the education departments to collect data on regular basis from such institutions. Hence the data on such institutions, as suggested by the High Level Committee on Educational Statistics, may be collected by the NSSO as a part of their annual rounds and information on them may be   presented separately.

iv)   It is also suggested that these institutions may also be covered under All India Educational Survey on quinquenial basis, but their information may be presented separately.

2.   Coverage of Information

3.5   The problem of data-gaps has been discussed in the second chapter of this Report. For a comprehensive EMIS, it is essential that we may work out qualitative and quantitative information requirements on the following lines:

a)   Information needs for functional areas like planning, management, monitoring, evaluation etc;

b)   Information needs for performance of these functions at various levels of administration i.e. institution, village, block, district, state and centre; and

c)   Information requirements of agencies other   than department of education at national and international levels.

3.6   Thereafter, it's suggested that we may try to group these information requirements as under.

i)   Minimum information required to be collected frequently on census basis;

ii)   Additional selected information required to be collected quinquennially on census or sample basis;

iii)   Comprehensive data covering all aspects and sectors of education, and trainings needed on decennial basis; and

iv)   Special information e.g. reasons for wastage and stagnation, absenteeism among teachers, etc., as and when required.

3.7   The Group also discussed the proposal of the Ministry to collect data on age-wise break up of class-specific enrolment especially for monitoring children upto the age of 14 completing minimum levels of education as envisaged under the National Policy on Education on census basis. While appreciating the utility of such a detailed information, the Group expressed its fears on its operational side, i.e. heavy workload, time consuming, expensive, etc. The Group, accordingly, suggests that:

i)   Class-wise enrolment may be collected at frequent intervals on census basis;

ii)   Data on educational achievements, wastage and stagnation, attendence and age-wise break-up may be taken up on sample basis as a part of quinquennial surveys; and

iii)   Data on socio-economic background of students may be collected in their annual rounds by NSSO once in 5 years.

3.   Conduct of Educational Surveys

3.8   The Group strongly recommends that the educational surveys may be conducted regularly on census as well as sample basis to strengthen the educational information system. The periodicity of the surveys may be determined on the basis of their scope and coverage as discussed in para 3.6. The periodicity of regular surveys is suggested as under:

a)   Decennial Surveys

These comprehensive type of surveys may be conducted once in 10 years for, preferably in census years, all sectors of education as was done under Third All India Educational Survey.

b)   Quinquennial Surveys

These surveys may cover selected information with particular reference to plan priorities and be conducted once in 5 years.

c)   Special Surveys

These may be conducted on census or sample basis in order to study specific educational problems e.g. regional imbalances, causes of wastage and stagnation, absenteeism among teachers, etc. These should be conducted as and when required.

3.9   In order to avoid duplication, it is suggested that when decennial and quinquennial surveys are conducted, there is no need to collect separate educational statistics. Data needed for statistical purposes may form part of these surveys. Similarly, when decennial surveys are conducted, there is no need to conduct quinquennial surveys. This would not only help in avoiding duplication and overlapping in data collection but also reduce the burden on the basic reporters. As the statistical staff would be free from routine collection of data during survey years, they may be directly involved in conduct of periodical surveys.

3.10   The Working Group also suggests that :

i)   These surveys need not be limited to school education but cover other sectors of education.

ii)   Data collected through surveys may be subjected to detailed analysis by experts on the lines of census organisation.

iii) Exercise on School Mapping may be undertaken on the basis of data collected through All India Educational Surveys.

iv)   In addition to National and State Level Reports, District level comprehensive survey reports may be published.

3.11   The Group also suggests that before the conduct of surveys on the lines of census organisation, lot of preparatory work needs to be done, like, meeting of user organisations/ agencies, plan for publication of studies/reports on the basis of survey data, etc.

3.12   For periodical surveys there may be permanent and trained staff as a part of statistical machinery at various levels.

4.   Sample Survey Techniques

3.13   As pointed out earlier, in the present system of data collection in education, there is a very limited use of sample survey methods. Moreover, the data collected on census basis is not all that dependable as has been the experience. Hence, it is essential to adopt combination of different methods of data

collection including sample surveys to satisfy data needs of some educational variables for which census method is both expensive and time consuming. The Statistical Division of the Ministry and other professional institutions at the national and state levels may take up studies to develop suitable methodologies to collect data on sample basis. In this connection, we may also draw upon the experience of sample registration system in the field of demography and expertise of National Sample Survey Organisazation.

5. Concepts and Definitions

3.14   While appreciating the efforts made by the Statistical Division of the Ministry of HRD in preparing guidelines on concepts and definitions in educational statistics on the lines of International Standard Classification recommended by UNESCO, the Working Group suggests that:

i)   Various concepts and definitions may be further standardised, wherever necessary, for all sectors of education and for that a separate broad-based technical committee should be set-up. It may consider not only those areas for which routine educational statistics are collected, but all other areas on which data are to be collected for developing a comprehensive system of EMIS. In this committee, in addition to statisticians, administrators, planners, educationists, experts from organisations like UGC, Indian Standards Institution, CBRI, NCERT, NIEPA, CSO. Planning Commission, IAMR, etc. may also be duly represented.

ii)   Concepts once standarized, may be adopted uniformly by all agencies concerned with the collection and compilation of educational data and conduct of educational surveys both at State and National levels.

iii)   The Ministry may also bring out a handbook explaining these standardized concepts and definitions for use of various organizations, user agencies, planners, administrators, etc.

6. Flow, Frequency and Individual Data System (IDS)

3.15   With better coordination and rationalization in the existing system of data collection, a substantial reduction in the workload of various institutions which supply data to different agencies can be brought about. In this connection, the Working Group recommends that the items of information required at various levels may be grouped as under:

a)   Status information; and
b)   Process information.

3.16   'Status information' may include data elements which do not change frequently, e.g., name and address of institution, locational pattern, date of establishment, type and nature of accommodation, environmental setting, and details like name, sex and date of birth of teachers, etc. This initial information once collected should be updated regularly. The 'Process Information' refers to information which changes frequently e.g., attendence, flow of learners, procurement and supply of inputs, teaching-learning processes, management processes, etc.

3.17   It is suggested that 'Individual Data System' (IDS) in respect of teachers and schools, and if possible, on students may be introduced to provide data base for status information and help in development of Data 'Banks' at appropriate levels.

3.18   For 'Process Information', a system of periodical 'Progress Reports' may be introduced especially to monitor implementation of various programmes, schemes and projects. Information collected through these forms may also be used to up-date status information. The contents and flow of these forms should cover critical aspects of various programmes and meet the information requirements of different levels of administration.

3.19   The Group is also of the view that the flow of information on monthly basis, as far as possible, may be restricted upto block/project level. At district, state and national levels, a system of quarterly reports would help particularly in programme monitoring. The system of Annual Statistical Returns may continue for collection of information from institutions not to be covered in the system proposed above, i.e. non-government institutions.

3.20   Efforts should be made to develop EMIS for all sectors of school education at the district level as it has been envisaged as a basic unit of planning and management upto higher secondary level of education under the National Policy on Education (1986). Information so gathered may flow directly from the district to state and the centre levels as shown in the Diagram on the next page.

3.21   The system of EMIS as proposed above would also facilitate introduction of a computerised network of District Level Information (DISNIC) being developed by the National Informatic Centre for all the Districts in the country.

7.   Integrated Classification for Planning, Budgeting and Accounting

3.22   It is suggested that the 'Integrated Classification for Planning, Budgeting and Accounting' which has been develped by an Inter-Departmental Group was set up by the Ministry of Finance, for collection of financial data, should be strictly followed. This classification provides common list of major, sub-major and minor heads to be used for planning as well as accounting purposes. It would not only make monitoring of expenditure under
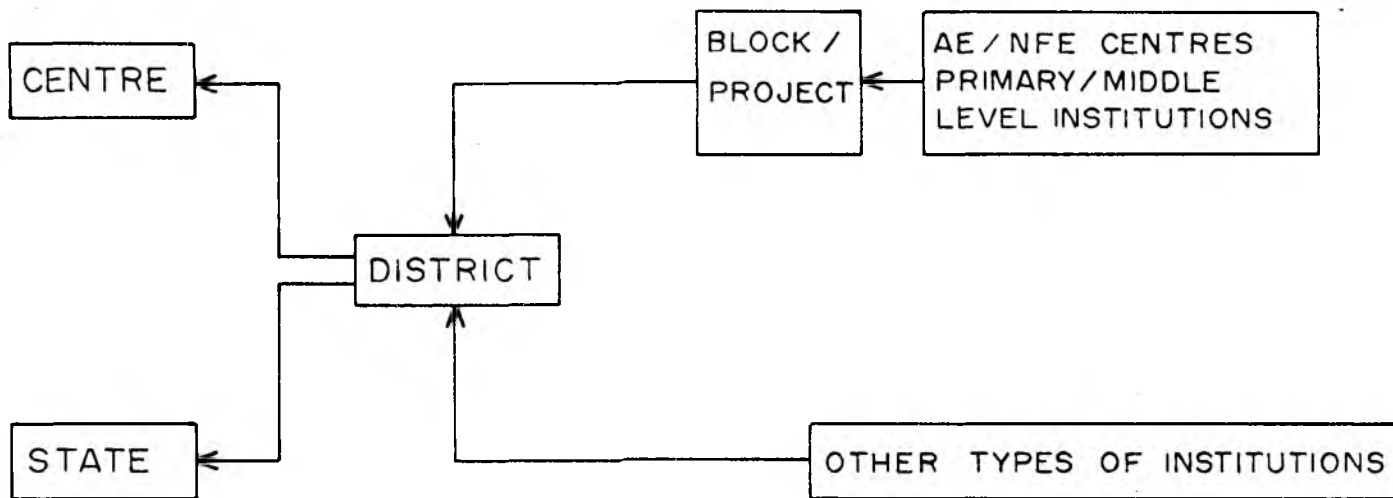
SUGGESTED FLOW FOR COMPUTERISED
E M I S

Ref. Para 3.20 at P. No 22

various plan schemes an easier task but also simplify work of basic reporters.

8. Basic Records at the Institutional Level

3.23   The Group suggests that success of any EMIS would depend on availability of basic records at the institutional level. In fact, the process of development of MIS should start with development of information base at the very source level. Hence, the basic records at this level should be streamlined and simplified. The Group recommends that all the schools should maintain atleast the following four types of Registers :

    i)   Admission Register with detailed information on students, his socio-economic background, etc.

    ii) School Information Register with detailed information on all aspects of school.

   iii) Attendance Register for day-to-day attendance of children.

    iv) Teachers' Register for detailed information on teachers.

3.24   Private schools should preferably maintain an additional register on income from different sources and expenditure incurred on different items each year.

3.25   NIEPA has also suggested maintenance of the following four Registers for MIS at NFE Centre level :

    i)   Learner Card separately for every learner registerd in the centre in the form of admission-cum-cumulative progress report of the pupil;

    ii) Stock Register for consumable and non-consumable items supplied to the centre;

   iii) Instructor's Diary for recording day to day problems, difficulties, achievements etc; and

    iv) Attendance Register for daily attendance of pupils and instructors.

9. Checking of Data

3.26   Though it is a difficult area but for improving the quality and reliability of information an in-built system of checking will have to be introduced. As suggested by the High Level Committee on Educational Statistics, sample studies to test the quality and reliability of data may be undertaken by trained staff of the state and central level statistical agencies. The Group also suggests that :

i) Information through proper channels may be certified by the next higher level before onward transmission alongwith a note on feed-back action.

ii) Selected information and progress reports with institutional details at block and district levels and with district/block wise details at state level may be regularly published without any time lag for general circulation and comments.

iii) Progress Reports based on MIS may be presented and discussed in education committees constituted at differrent levels, e.g. Village Education Committees, Education Committees at Project, Block, District and State levels, etc.

iv) Higher level functionaries should personally visit the field and have sample checking of information with records and actual situation.

10. Date of Reference

3.27   The Group suggests that the reference date of 30th September being followed at present for annual collection of non-financial data and 31st March for financial data under the Statistical Information System may be followed by all the organisations/agencies for presentation and finalisation of their educational statistics on annual basis.   It would help in making the system of comparison and coordination of data an easy task.

SUGGESTED FRAMEWORK FOR MONITORING AND EVALUATION OF EDUCATIONAL PROGRAMMES

4.1   In the third chapter of this Report, the Working Group has already made a number of suggestions on development of integrated information system, which among others, would also meet the requirements of monitoring and evaluation. In this chapter, the Group makes recommendations with regard to development of a system of monitoring and evaluation for educational programmes.

A. Monitoring of Educational Programmes

Monitoring Function

4.2   Monitoring, as a technique of management, is a system of watching the progress of a programme with a view to take corrective action for successful implementation as per plan. The essence of a good monitoring system is the speed of communication of dependable information on key result areas, the competence of the monitor to interpret the signals and the ability to lead to intervention in a constructive manner. In concrete terms the monitoring function should necessarily involve :

-      Watching actual progress/performance, comparing it with disaggregated targets, identifying shortfalls and problem areas;

-      Raising warning/alert signals and informing decision makers;

-      Providing analysis of the problem areas, diagnosing and suggesting alternative courses of action where called for;

-      Giving feed-back of the decisions taken at the implementation levels;

-      Developing and maintaining data banks; and

-      Reporting to other levels and outside agencies as may be required.

4.3   In addition to the system of monitoring through established system of management information, the Working Group suggests that the following techniques of monitoring of various programmes may also continue to be followed :

i)   Review meetings;

ii)   Task forces, committees, steering groups especially to monitor and coordinate efforts at all levels;

iii)   Field visits, personal inspection and supervision;

iv)   Work schedules, plan of operations, PERT/CPM; etc.

4.4   However,   the   information   content,   channels   of
communication,   frequency,   presentation   formats   (including
presentation   through   charts   and   graphs   and   other   means)   etc.
should be framed according to the nature, type, size and
importance of projects, programmes and level of monitoring

Scope of Monitoring

4.5   As a method of control in management, the system of
monitoring should cover administrative, financial, physical and
academic aspects of various programmes. But it would require a
very comprehensive system of information and the   benefits
accruing   may   not justify the resources needed for   its
development and maintenance. The Group, therefore, suggests that
a system of monitoring of educational programmes may have two
aspects :

a)   General system for overall monitoring of   various
schemes/programmes; and

b)   Special system of monitoring for selected aspects of a
programme.

4.6   The Working Group recommends that all   the   plan
schemes/programmes may be covered under 'General System of
Monitoring'.   The 7th Plan Working Group on Monitoring suggested
a simple proforma for general monitoring of plan schemes on
quarterly basis.   The Group suggests that this proforma may be
used with suitable modifications, wherever necessary, to meet
specific requirements of various schemes.

4.7   In addition to the general system of monitoring for all
plan schemes, as suggested above, some selected programmes should
be identified for special monitoring. The proposed system should
look into critical areas which can be considered as key elements
for success of the programme especially in a multi-level system
of planning and administration. For example, if the programme of
universalisation of elementary education is taken for special
monitoring, instead of monitoring all aspects of the programme at
all levels we may identify the critical elements from the point
of view of its implementation which can be considered as the most
important to achieve the goal of universalization and hence need
special monitoring e.g. 'class-wise flow of enrolment','pupil-
achievement', etc.

4.8   At present, the Department of Education of the Ministry
of HRD has selected large number of schemes to   monitor
implementation of National Policy on Education as given in
Annexure - III of this Report. As mentioned earlier, the
Ministrty has already developed and in some cases is in the
process of developing monitoring system for these schemes.   The

Group suggests that instead of developing information systems for some of these schemes in isolation, a coordinated approach, wherever possible, may be adopted. For example, as project approach has been followed in non-formal and adult education, monitoring and information system for both these sectors need not be very much divergent from each other. Moreover, it may also be coordinated with the monitoring system for UEE.

4.9   The Group suggests that so far Navodaya Vidyalayas are concerned an integrated MIS should be introduced right from its initiation. For programmes like Teacher Education and Vocationalization of Education, special monitoring systems should be developed. While developing monitoring system for these and other schemes, participation of functionaries at all levels, particularly those working at operational levels, should be given due consideration.

Levels of Monitoring

4.10   The Working Group suggests that system of formal monitoring may be introduced at all those levels of administration where decisions are taken, i.e., institution, block, district, state and centre. However, the nature and objective of monitoring may vary from level to level. For example, at block and district levels, it should be management oriented and concerned with behavioural aspect of inputs and at the national and state levels its main concern should be to watch the behaviour of output where an element of evaluation also crops in. While monitoring of the state plan programmes/schemes should be undertaken at the state and its lower levels, the centre may confine itself to monitoring of the earmarked projects/programmes which are of vital importance for the country as a whole. In addition, the central monitoring should cover Centrally Sponsored Schemes.

Public Participation

4.11   While developing monitoring system for educational programmes, arrangements for public participation should be ensured at all levels through education committees which may be constituted at institution, village, block, district, state and national levels as envisaged under the National Policy on Education. These Committees should be well represented and vested with adequate powers to take decisions. Reports based on monitoring and information system should be regularly presented and discussed in such Committees. The Working Group did not discuss in detail the functions, constitutions, etc. of these Committees as it expected that Working Group on Management would cover this aspect.

B. Evaluation of Educational Programmes

4.12   Education is an integral part of the planning process and is generally considered as a process of discovering the extent to which individual, institution, or programme has

achieved or is in the process of achieving objectives it purports to achieve. Aim of evaluation is not merely to have general assessment of progress of any programme but also to identify the areas of its success and failure, appraisal of efficacy of the methods adopted and possible fresh approaches for attaining the desired objectives.

4.13   During the last more than three decades, huge investments have been made in education from central as well as state resources. But it has been observed that no effort has been made either by the states or the centre towards introduction of an organized system of regular evaluation of educational programmes.

4.14   A few evaluation studies have been undertaken by the 'Programme Evaluation Organization' of the Planning Commission in respect of the educational programmes. NIEPA, NCERT and some other organizations have also conducted a number of evaluation studies of various educational programmes from time to time. Most of these studies are in the area of elementary, adult and non-formal education. These studies, though very important, do not form part of any regular, systematic and in-built system of evaluation.

4.15   The Working Group after considering various issues involved in the introduction of an in-built system of evaluation of educational programmes, suggests that a comprehensive system of internal and external evaluation may be introduced on the following lines :-

Internal Evaluation

4.16   Internal evaluation is an extension of the system of monitoring discussed earlier. It should be in-built, participatory and periodical mechanism of evaluation and should be undertaken at all levels of programme planning and administration. Periodical Reviews based on the monitoring system may be prepared, discussed and published on regular basis. Mid-year plan reviews may be made a regular feature for all programmes/schemes.

4.17   To make the internal evaluation more participatory, the Group suggests that Field Workshop Method based on dialogue approach may be followed particularly at operational levels of programmes. The main feature of such an approach is the reciprocal relationship between action, reflection and learning. Under such a system, workshops and meetings have to be regularly organized at different operational levels in which organisers and functionaries concerned with programme implementation should discuss and reflect on their work. In such meetings/workshops, areas deserving special attention may be identified and wherever needed necessary corrective measures be taken.

4.18   To establish credibility of a programme and also to improve its effectiveness, it is necessary to have a system of external evaluation. The experience of associating external agencies with evaluation work, particularly in the area of adult education is extremely valuable but some of the limitations would have to be remedied while planning for further larger involvement in evaluation tasks. These limitations, generally, pertain to selection of agency, assessment of evaluation reports, lack of participation of implementing agencies, use of evaluation findings in improving programme effectiveness etc. Selection of external agency and the programme to be evaluated may be made only after taking into account the specialization of the agency and the nature, priority and area of implementation of the programme to be evaluated.

4.19   The Group considered the suggestion for establishment of an organisation on lines of Programme Evaluation Organisation (PEO) of the Planning Commission especially for evaluation of educational programmes. The Group was of view that instead of creating a separate agency, it would be more appropriate if the P.E.O. could be extensively involved in undertaking evaluation of educational programmes of national importance. The arrangements may be made in a way that this organisation evaluates about one educational programme every year.

4.20   The issues pertaining to identification of programmes/schemes for external evaluation were also discussed by the Group and it was suggested that the Planning and Statistics Division of the Ministry of H.R.D. (Department of Education) should act as a nodal agency in the Ministry to coordinate the work pertaining to programme evaluation. This Division, in addition to its present functions, may be assigned the following responsibilities:

     i)   To identify different programmes, schemes, and areas for external evaluation in consultation with various Departments, Divisions, Offices and Organisations of the Ministry. This exercise should be on regular basis.

    ii)   To select official and non-official agencies to be assigned the responsibility of evaluating various programmes/schemes in consultation with the concerned Division/Organisation of the Ministry.

   iii)   To coordinate and act as clearing house for evaluation work done by various official and non-official agencies in the sector of education.

    iv)   To get evaluation reports evaluated by experts in consultation with the concerned Division/Organisation of the Ministry.

4.21   The Group also suggests that C.A.B.E. and Conference of
Education Secretaries and Directors of Education may be included
in the process of identification of various programmes and
schemes to be evaluated.   The evaluation reports should also be
presented and discussed in these forums.   A follow-up report on
action taken on recommendation/observations made in various
evaluation reports may also be brought to the notice of these
national level advisory bodies.

INFORMATION SYSTEMS FOR OTHER RELATED SECTORS

5.1   The Working Group also briefly reviewed the existing statistics, monitoring and evaluation systems of the following sectors :

   A.   Culture
   B.   Arts
   C.   Youth Affairs and Sports

5.2   It is only recently that some steps have been taken to develop MIS in these areas as most of the data collected in the past used to be generated as a by-product of administrative action which was deficient in scope and coverage. As regards monitoring, the system of general monitoring as discussed earlier, is followed in respect of plan schemes of these sectors. It is only in case of Youth Affairs, that some of its schemes have been evaluated.   But like other sectors of education, there has been no in-built system of continuous internal and external evaluation.

5.3   The Group recommends that the framework suggested for MIS, Monitoring and Evaluation of various programmes/schemes for education sector in third and fourth Chapters of this Report, may also be considered for developing such system in respect of these sectors.

5.4   A brief review of sectors which are the primary concern of the following departments of the Ministry of Human Resource Deveelopment has been made by the Group :

   A.   Department of Culture
   B.   Department of Arts
   C.   Department of Youth Welfare and Sports

A. System of Statistics, Monitoring and Evaluation in the
    Department of Culture, Ministry of Human Resource Development

a)   Cultural Statistics

5.5   No organised efforts have so far been made to collect cultural statistics on regular, systematic and continuing basis at national level. Cultural statistic being generally by-product of administrative action are deficient in scope and coverage. The spread of its activities cover a wide spectrum of human life, and consequently, its promotion, preservation and dissemination are being carried out by a number of governmental and non-governmental agencies, both at state and Centre levels.   There had been no nodal agency to coordinate and compile the cultural statistics. Being also multi-dimensional in character, extending in its varied forms from oral and traditional to modern and spread over different levels of social structure both in rural

and urban strata, its measurement is beset with intricate problems of methodology, complex nature of concepts and definitions involving multi-variant statistical indicators.

5.6   With the setting up of a nucleus cell of 'Cultural Statistics Unit' in the Department of Culture, the system of coordination, collection, processing and presentation of cultural data has started beginning to take shape. The establishment of separate Department of Culture in many States and Union Territories would also greatly facilitate the data collection and compilation process.

5.7   Towards building up a comprehensive data collection system in the cultural sphere, the Unit has set up an Expert Advisory Committee on Cultural Statistics, under the Chairmanship of Joint Secretary in the Department of Culture, Government of India, in 1987. The composition of this Committee comprises subject matter specialists in different areas of cultural activities, expert statisticians and computer personnel. Separate Sub-Groups to deliberate on different functional areas like, Archaeology, Archives, Libraries, Museums, Creative Arts and Art Education have also been constituted to assist the Advisory Committee in its task.

5.8   Based on the series of meetings and discussions of these sub-groups and on the basis of information furnished and collected from various cultural institutions, "A Statistical Profile of Cultural Institutions" has been brought out. It is a commendable initial effort of the Cultural Statistics Unit. In this connection, it may be reiterated that it is an initial compilation and may not have the full coverage of all cultural institutions in the country and also their activities.

5.9   The Advisory Committee has identified ten main areas for the data collection programme as follows :

    1. Building a comprehensive inventory of the various cultural organisations/instiutions in different fields of activities with information on their physical characteristics such as their locationl, geographical distribution in rural/urban areas, period of establishment, the controlling authority, organisational structures etc.

    2. Classificatory information by their functional types, status of the organisation etc.,

    3. Particulars of the holdings and their size in respect of Museums, Libraries, Archives, etc. and the Membership-size in case of Cultural Organisations.

    4. Statistics of cultural manpower - Professional, Technical and others

5. Budgetary provisions and expenditure with details for major items.

6. Type of facilities/services provided by the cultural organisations/institutions.

7. Statistics on Visitors/Users of the facilities.

8. Statistics of number of exhibitions, seminars/ workshops, cultural programmes etc. organised.

9. Publications, Documentations, Surveys carried out in the field.

10. Training particulars.

5.10   In order to develop the cultural statistics at the national level and for building up a regular system of collection for cultural statistics, a Working Group on technical methodology for cultural statistics has been constituted by the Department of Culture to advise on the technical, operational and organisational aspects of nation-wide data collection programme for cultural activities.

5.11   The first meeting of this Working Group was held at New Delhi on 5th and 6th October, 1988. At the meeting of this Working Group issues like classification, concepts and definitions used in cultural institutions, methodology for data collection, organisation of the programmes, periodicity for collection of data and pilot surveys, etc. for building up the system of cultural statistics at the national level were discussed in detail.

5.12   Based on the deliberations at this meeting it was decided that initially pilot surveys should be organised in 3-4 states like Kerala, Tamil Nadu, West Bengal and Maharashtra before launching an All India Survey of Cultural Institutions. Regarding other issues, i.e. periodicity, etc. it was felt that these should be decided after completion of the pilot study in these states.

5.13   With all the above measures initiated by this Department, for the building up and developing cultural statistics, it is felt that by the end of 1989 the Department would be in a position to bring out a comprehensive statistical profile of cultural institutions so as to meet the short-term and long-term requirements of various agencies.

b) Monitoring and Evaluation

5.14   For monitoring and evaluation in this Department, progress of various action plans is periodically monitored on a quarterly basis and the reports are furnished to the Cabinet Secretariat. Under these action plans physical targets are set for achievement and for reporting the progress thereon.

5.15   Similarly, the progress in the use of plan expenditure is also monitored in respect of various plan schemes of this Department.

c) Computerised MIS

5.16   The National Informatic Centre has developed the following data bases for the Department of Culture which has 10 subordinate offices and 23 autonomous institutions, almost entirely funded by it.

   a) Physical Data Base

      1. Monuments
      2. National Archieves
      3. Indian Communities

   b) Monitoring Data Base

      4. Action Plan Monitoring

   c) Administrative Data Base

      5. Financial Monitoring
      6. Personnel Information

5.17   In view of developments in the area of MIS for Culture as mentioned above, the Working Group is of the opinion that the concerned department has already taken steps in the right direction. The Group suggests that the efforts should be made to complete computerisation of MIS in this area during the 8th Plan period. It is also suggeted that publications of cultural statistics of India should be brought out on regular basis.

B.   Management Information System in the Department of Arts

5.18   The Department of Arts is specially charged with the task of establishing the Indira Gandhi National Centre for Arts (IGNCA). In this Centre, one of the division namely, the Indira Gandhi Kala Nidhi aims at developing a National Information System and a Data Bank on arts, humanities, cultural heritage and a fully supported reference library of multi-media collections. Keeping in view the objectives and functions of IGNCA in general and Kala Nidhi in particular, the National Informatic Centre has developed the following data bases :

a)   Physical Data Base

      i) Manuscripts
     ii) Union Catalogue of Catalogues
    iii) Ved Charts
     iv) Musical performances
      v) Paintings
     vi) Reprographic material on musical instruments.

b)   Administrative Data Base

   i) Mail Monitoring
   ii) Resource Persons
   iii) File Monitoring
   iv) Personnel Information

5.19   This Department is planning to develop a multi-language
interface and image storing and processing for manuscripts,
paintings, etc. The National Informatic Centre is reported to
have prepard a feasibility report for IGNCA. The Working Group
feels that necessary steps for development of MIS for Arts have
already been initiated and suggests that during the 8th Plan,
this work should be completed.

C)   Management Information System in the Department of Youth
      Affairs and Sports

5.20   The National Informatic Centre is reported to have
already initiated necessary steps to develop a computerised MIS
especially to help in monitoring and developing data base for
various programmes and activities of the Department of Youth
Affairs and Sports. The NIC has identified the following
projects for computerisation and software development in the area
of youth affairs and sports ·

   1. Nehru Yuvak Kendras
   2. National Service Scheme
   3. Sports Infrastructure Information
   4. Sports Federations
   5. Sports Excellence in Schools.
   6. National Players data base
   7. National Sports Talent Contest
   8. Monitoring of NSTC Schemes
   9. Special Area Games
   10. Monitoring of Cultural Exchanges
   11. Action Plan for the Department of Culture
   12. Action Plan for SAI and NIS, Patiala.
   13. Monitoring of Other Important Schemes.

5.21   The NIC has installed PCs connected to super computer
for computerisation of the schemes at Shastri Bhawan and
Jawaharlal Nehru Stadium. Some physical and monitoring data
bases have already been developed and games management
information systems have also been developed for popular events
like Table Tennis Championships, World Railway Games. A great
deal of effort is required to collect data in respect of Nehru
Yuvak Kendras, National Service Scheme, etc. for developing a
good and effective monitoring system. It is also necessary to
develop and create data bases in respect of National Players,
sports infrastructural facilities and sports federation, etc. to
give a real picture about sports and youth activities in the
country.

5.22   The Working Group appreciates the steps taken to develop a computerised MIS for this area as described above. Howevver, it suggests that on the lines of development of MIS for culture, an Expert Committee should be set up to study in detail and advise on various methodological, operational and technical aspects for launching a nation-wide data collection programme in the area of sports and youth welfare.

COMPUTERISATION AND INFRASTRUCTURAL REQUIREMENTS

6.1   The Working Group also considered different issues involved in computerisation of information and infrastructural requirements during the 8th Five Year Plan to implement various suggestions made in this Report.

A.   Computerization of Information

6.2   Of late, computers have come in a big way and various organizations and departments have initiated steps to develop computer based Management Information Systems, particularly in sectors of non-formal education, adult education, higher education and technical education. Some states have also taken steps for use of computers in planning, statistics and management. For example, Andhra Pradesh has done considerable work in this area. The Statistical Division of the Ministry has also introduced an important plan scheme on 'Computerization of Educational Statistics'.

6.3   Computerization of 5th All India Educational Survey Data has been undertaken by the NCERT. NIEPA, which has already started organizing courses on application of computers in educational planning and management is making efforts with the help of Ministry of HRD to develop EMIS at District level. The Group also took cognizance of the experimental project COPE under the Ministry at NIEPA for developing on line information system for NFE and UEE.

6.4   The National Informatic Centre has also developed the following Computer based management information systems for the Department of Education in the Ministry of HRD :

    a)   Data Bases on Financial Information

        i)   Budget Information System
        ii)   Financial Data Base for Educational Statistics

    b)   Data Bases for Monitoring Information

        iii) Information System for Monitoring various Schemes of National Policy on Education
        iv)   Information System for Monitoring performance of Adult Education Centres.

    c)   Data Bases for Sectoral Programmes

        v)   Selected Educational Statistics Data Base for a Review of Performance
        vi)   A Comprehensive Educational Statistics Data Base
        vii) Data Base on Technical Education Facilities
        viii) Data Base on Higher Education
        ix)   Data Base on Sports for Colleges and Universities

d)   Data Bases for Administrative and Special Projects

   x) Pay Roll System for Employees
   xi) Accounts Information System
   xii) Information System for Processing Bio-data of candidates for Junior Fellowship Examination.

6.5 In order to utilise the opportunities offered by the information technology to improve and accelerate the planning process to provide information on socio-economic developmental programmes, the National Informatic Centre (NIC) has set up a nation-wide satellite based computer communication netweork (NICNET). Through this system, NIC is trying to play a promotional role in creating an appropriate computer based information system and introducing informatic culture in Central Government Departments. The various data bases as listed above have been planned by the NIC as a part of NICNET which has :

  i) Super Computer (NEC-S 1000) at NIC Regional Centres at Delhi, Pune, Bhubneshwar and Hyderabad

  ii) ND-550 equivalent super mini computers at state capitals for providing informatics services to the states; and

  iii) Super PC-AT computer system at each district to provide services to the district administration

6.6 The Group was also informed that NIC will be able to install computer systems of a reasonable high capacity in all states/district headquarters before the end of 1989. NIC is also proposing to introduce computers upto block level during the 8th Five Year Plan.

6.7 As district is the basic unit in multi-level framework of planning and administration in the country, the Government of India have, therefore, decided to launch the District Information System of NIC (DISNIC). The National Informatic Centre has been entrusted with the responsibility of implementing DISNIC in the shortest possible time-frame. The main objectives of DISNIC are as under:

  i) To develop the necessary information system/data base in various sectors of the economy for planning and decision making at the district level administration;

  ii) To promote information culture in the district administration;

  iii) To improve capacity and presentation of statistics needed for national, regional and district planning; and

iv)   To develop modeling and forecasting techniques that are required for decision making for economic development.

6.8   DISNIC will help in compilation, dissemination and on-line accessibility of information on several sectors of economy at state level with availability of quantitative as well as qualitative information at disaggregated levels, i.e., district, taluk, block, panchayat and village. At the district level, it plans to develop the following three Comprehensive Data Bases for different sectors/departments :

    i)   Planning and Monitoring Data Base;
    ii)   Administrative Data Base; and
    iii)   Socio-economic Data Base.

6.9   The representative of the NIC also brought the following points to the notice of the Group :

    i)   NIC has plans to develop information systems for 27 sectors of economy at district level including Education, Plan Scheme Information System and Budget & Accounts. These information systems would be integrated at district level for better monitoring and evaluation and to avoid duplication.

    ii)   A set of proformae for Education Sector has been suggested to collect information at institutional level for school, college, technical and medical and project/centre for adult and non-formal education programmes to create data-bases at district level. This information basically pertains to core data at institution level which can be updated on annual basis.

    iii)   A Working Group has been constituted by NIC under the Chairmanship of Adviser (Education), Planning Commission to standardise information content, prepare data formats, create computerised data bases and establish procedures for on-line transformation of information through NICNET. This Group is discussing with various divisions of Department of Education to finalise the information needs so that the proformae can be given to Secretary (Education) for presentation to a wider forum.

6.10   Keeping above developments in view, the Working Group suggests that the education sector should not lag behind and start taking necessary steps to make full use of computer facilities being made available at national, state and district levels. The Group, accordingly, makes the following suggestions :

    i)   The present approach to develop computer based MIS by various sectors of education in isolation from each other needs to be looked into. An integrated approach should be followed in making assessment of information

requirements in a multi-level system of educational planning and management for all sectors in education.

ii) There should be close cooperation, coordination and collaboration between NIC, Department of Education and other concerned agencies and organizations, while making assessment of information requirements for various data bases at different levels of administration.

iii) Computerization of data should not be adopted as a fashion. Rather the whole exercise of computerization would require a lot of preparatory work in education sector. To be more precise an integrated information system consisting of different data bases for various levels has to be developed before introduction of computers. The crash introduction of computers without making indepth study of the system is bound to result in wastage of resources. Also there is greater possibility of confusion and chaos.

iv) The system of socio-economic data base developed by NIC under DISNIC is generally on lines of the existing system of data collection by the Directorates of Economic and Statistics of various States/UTs. Hence a detailed study will have to be done to develop a system which could meet the requirements of the education sectors in which functionaries working at various levels i.e. block level may also be associated. The experience gained by the Statistical Division of the Ministry from its pilot project on computerization of educational statistics in U.P. can be of great use here.

v) For computerisation it is also necessary to maintain institutional level core information on 'Individual Data System' as already suggested in para 3.17 of this report. It would require collection of comprehensive data particularly on institutions and teachers at initial stages. Thereafter, it has to be updated on a regular basis. It is, therefore, suggested that an 'Expert Group' may be constituted to design proformae and suggest suitable registers for collection of information and creation of data bases. Similarly, efforts should also be made to develop suitable software. This being a mamoth task, would require besides NIC, involvement of various other agencies particularly at the initial stages. However, NIC and Statistical Division of the Ministry should be directly involved in all such exercises so as to avoid any duplication or overlapping in the area of software development, training and implementation of computerised information.

vi) As mentioned earlier, super PC-AT computer system will be provided under DISNIC in the office of the District Collector for all the user departments. In view of nature and quantum of work, particularly on planning and administrative sides, the Group suggests that a separate PC-XT compatible with the main system under DISNIC may be provided in the office of DEO in a phased manner.

vii) Keeping in view the size, multiplicity of agencies, structures and organization, introduction of computers in educational planning and management should be done in phases. District level structure of educational administration, till a common pattern as envisaged under the National Policy on Education is adopted, varies from State to State. Therefore, it would be fairly difficult to develop a common pattern of MIS for whole of the country. To start with, it is suggested that at least one district may be taken up on pilot basis for computerized EMIS in every State/UT. On the basis of experience gained, other districts should be covered by the end of 8th Five Year Plan.

viii) To create computer culture in educational administration, orientation courses on application of computers in educational planning and administration should be organized on mass scale covering all the heads of institutions and officers at various levels. NIEPA and NIC may be asked to play a major role in this area.

B.   Organisational Requirements

6.11   As planning, statistics, survey, monitoring and internal evaluation are interlinked tasks, it is essential to take a coordinated view of their organizational requirements at various levels of administration. Creation of a separate machinery for these tasks would not only result in duplication and overlapping of efforts but also in under utilization of the staff. No common pattern can be suggested for general adoption as the process and system of educational administration and planning varies from state to state. However, the Working Group has suggested here general guidelines for determining the staffing pattern at various levels. While suggesting these guidelines, the Group has also taken into consideration the recommendations made by the 'High level Committee on Educational Statistics' and administrative structures envisaged under the National Policy on Education (1986):

1.   National Level

6.12   As mentioned earlier, multiplicity of agencies collecting statistical and related information on education at the national level has not only created numerous problems at the national level, but has resulted in the generation of similar

problems at the State level. For improvement of this system at the national level, the Group makes following recommendations :

i) As a matter of principle, the Statistical Division of the Ministry should avoid collection of information directly from States/UTs. On those sectors of education on which other agencies/organizations/ Ministries are collecting data from the institutions/ sectors falling under their control/jurisdiction. Just as arrangements have been made by the Ministry with the University Grants Commission, arrangements on similar lines should be made with such agencies/organizations/ Ministries. This is particularly true in case of professional and technical education like medical, agriculture, industrial training etc. Necessary steps needed for coordination may be taken by the Ministry of HRD at the higher levels.

ii) Even within the Department of Education of the Ministry of HRD, information on various sectors is collected on regular basis e.g. technical education, non-formal education, adult education, etc. In the area of technical education, at the request of the concerned Division of the Ministry, the Institute of Applied Manpower Research has developed MIS on certain types of technical institutions. Directorate of Adult Education has already introduced MIS for adult education and Division of Elementary Education is in the process of introducing MIS for Non-formal Education. In this connection, the Group suggests that :

a) The Planning, Statistics and Monitoring Division may be involved in development of MIS by every concerned division/branch of the Ministry;

b) This Division may coordinate and monitor functioning of MIS in various divisions/branches of the Ministry;

c) The concerned division/branch which develops its own MIS may also be provided with adequate trained staff and this staff may function in close collaboration with the Statistical Division of the Ministry; and

d) The Statistical Division may develop and manage MIS in the Ministry for those sectors/areas where more than one Division/Branch of the Ministry is involved.

iii) For the national level organization like Kendriya Vidyalya Sangathan, Navodaya Vidyalaya Samiti, CBSE, etc., it would be highly desirable and also economical to centralise the process of data collection and its compilation by developing a suitable computerised MIS.

These organisations should also generate districtwise data and feed the same to Statistical Divisions at National and State levels.

iv) The NCERT should generate and analyse All India Educational Survey data with district level breakup.

v)   NIEPA may develop an information base at the national level for information on educational planning and management systems, processes, structures in various parts of the country.

vi) The Statistical Division of the Ministry may speed up the development of its computerised data bank and undertake the following functions in addition to the functions being performed by it at present :

   a) To undertake studies, develop and standardize techniques of quantitative analysis for educational planning, models for projections and forecasting etc;

   b) To prepare and publish educational progress reports on periodical basis on National Policy on Education; and

   c) To undertake follow-up of the findings of various monitoring and evaluation reports in the Ministry etc.

vii) In view of the increased functional areas of the Planning, Monitoring and Statistical Division of the Ministry as suggested above, the Group suggests that the present set-up of this Division of the Ministry of HRD requires reorganization and strengthening in the light of recommendations of the High Level Committee on Educational Statistics. This Division should be headed by a professional statistician of the rank of Planning and Statistical Adviser in the Ministry. Adequate professional staff at senior level should be made available to this Division. Similarly the information and statistics division of the UGC should also be adequately strengthened.

viii) On similar lines, adequte staff on regular basis should be provided to the other Divisions and Organizations of the Ministry if additional responsibilities of MIS are to be assigned to them. Directorate of Adult Education has separate staff but other Divisions and organisations will have to be provided with adequate separate staff for this purpose. To work out such requirements on the basis of some norms, it is suggested that a Task Force may be constituted to go into such details.

ix) As the NIC is going to undertake major responsibility of providing support both in case of hardware and software for computerisation of EMIS, its concerned divisions also need to be adequately strengthened and upgraded.

2. State Level

6.13 On the lines of Planning, Monitoring and Statistics Division at the National level, there should be Planning, Statistic, Survey and Monitoring Units in Education Department of every State/UT to perform the following main functions :

i) To prepare and coordinate long-term, medium-term and short term plans for educational development of the State/UT;

ii) To develop, operationalize and maintain integrated EMIS and data banks;

iii) To undertake regular surveys and studies on educational problems;

iv) To prepare analytical progress reports on periodical basis for monitoring and internal evaluation;

v) To undertake follow-up actions on the basis of findings of monitoring and evaluation reports;

vi) To analyse and make projections on the basis of data collected from various surveys; and

vii) To submit statistics and information to various agencies; publish annual statistics and perform clearing house functions for educational information; etc.

6.14 This Unit may be placed under the charge of a Deputy Director (Jt. Director in case of bigger states). This officer should be assisted by one Assistant Director for Statistics and Survey (Dy. Director in case of big states) One Additional Dy. Director for Planning and Monitoring may be given in case of big states having more than 20 districts. One Post of Systems Analyst and one for software development may also be provided at State/UT level in this unit.

6.15 If there is only one Directorate of Education, this Unit may be located there. In case of more than one Directorate, this Unit may be located in the office of Education Secretary/Commissioner. However, in such cases, a small Unit with one Assistant Director and one person for necessary hardware/software computer operations may be provided to all the Directorates of Education. The main unit may coordinate their functioning.

6.16   The ministerial support to these units may be provided
on the basis of norms which need to be prescribed for creation
of such posts according to the workload for guidance of states.

3.   District Level

6.17   In the National Policy on Education, district has been
envisaged as the main unit for decentralized planning and
management. Similarly the district is also going to be the basic
unit for collection, entry and creation of data bases under
DISNIC by the National Information Centre not only for education
but all other departments. Hence, there should be a strong unit
for planning, monitoring and information at this level as it has
to cater to the needs of all sectors of formal and non-formal
education upto higher secondary level. The main functions of
this unit should be on lines of functions suggested above for the
state level unit.

6.18   The Group suggests that at the sistrict level there
should be an integrated EMIS for all sectors of school education
and for this purpose there should also be integrated system of
educational administration for all sectors upto higher secondary
level in a district. So far staffing pattern at district level
is concerned, it is suggested that an officer in the rank only
next to the Chief Officer of Education in the District may be
made incharge of this unit. He should be provided with one
trained Statistician for survey and statistics and one Planning
Officer for planning and monitoring. However, this staff is
suggested for districts with about 10 to 12 blocks. In case of
bigger districts, additional staff should be, accordingly,
provided at the lower levels. The district Unit may also be
provided with a person trained in computers and system analysis.

4.   Block Level

6.19   Block will have the major responsibility for planning
and management of elementary, non-formal and adult education.
Instead of providing separate staff for all these sectors, it is
suggested that two full time assistants, one for planning and
monitoring and the other for statistics and survey be provided to
the officer incharge of education at this level.

6.20   As far as possible, the technical staff at block and
district levels should be from the teaching cadre. A teacher
having mathematics/statistics/commerce/economics background with
aptitude for field work may be adjusted against such posts. They
should be given some training in educational planning and
statistics and also in computer techniques. To attract good
teachers, some incentive/honorarium may be given in the form of
special pay to the persons holding such posts at these levels.
However, at the state level professional staff from Directorate
of Economics and Statistics, wherever possible, can be brought
particularly for statistics and survey work.

C. Monitoring and Control of EMIS

6.21   In order to coordinate, monitor and control EMIS, in terms of its scope and coverage, flow and management, Group suggests that Standing Committees may be set up under the Education Secretaries at state and national levels with senior representatives from all departments/organisations, eminent educationists, administrators, statisticians, computer experts, etc. No-body at any level may be allowed to introduce, modify any format or collect any additional data from the field without prior approval of these Committees. These Committees may also be assigned the responsibility for monitoring implementation of recommendations made in this Report.

D. Training and Staff Development

6.22   There is also a need for training of the staff which is assigned the responsibility of planning, monitoring and statistics at various levels. They require special training in computer applications. Facilities for training of officers upto district level should be provided at state level and for officers working at district level and above, national level institutions should be involved. A national level institution like NIEPA can be considered for undertaking this responsibility. Inter-state visits to successful experiments in this area may also be regularly organized. The staff working in the Planning, Statistics and Monitoring Division of the Ministry and in other concerned organizations may also undertake visits to those countries where computer based EMIS has been introduced successfully.

E. Financial Implications

6.23   Most of the recommendations made by the Working Group do not involve any financial implications. However, for staffing, training, computerization, printing of forms. etc., as suggested in this report, a Centrally Sponsored Scheme with 100% assistance may be introduced during the 8th Five Year Plan for which an amount of Rs. 108 crores may be earmarked in the Plan as per the following break-up:

	Non-Recurring	Recu-rring	Total

A. **Computerisation**

1. Computer Hardware, site preparation and maintenance

   a) District level (@ Rs. 2 lakhs per district for non-recurring and Rs. 1 lakh for recurring for 5 years) — 10.00, 5.00, 15.00

   b) State level (@ Rs. 10 lakhs per State/UT for non-recurring and @ Rs. 5 lakh for recurring for 5 years) — 3.20, 1.60, 4.80

   c) National Level — 1.00, 0.50, 1.50

2. Development of MIS (need assessment, printing and distribution of forms, collection and reconciliation of data, data entry, report generation, etc.)

   a) District level (@ Rs. 1 lakh per institution per year) — -, 5.00, 5.00

   b) State level (@ Rs. 1 lakh per State/ UT per year) — -, 0.16, 0.16

   c) National Level — -, 0.50, 0.50

	Non-Recurring	Recurring	Total
a) District level	10.00	5.00	15.00
b) State level	3.20	1.60	4.80
c) National Level	1.00	0.50	1.50
a) District level	-	5.00	5.00
b) State level	-	0.16	0.16
c) National Level	-	0.50	0.50
Total (A)	14.20	12.76	26.96
Say	14.00	13.00	27.00

B. **Organisational Requirements and Software Development**

   a) District and Block Levels (@ Rs. 4 lakhs per district per year @ 100 districts to be covered every year) — -, 60.00, 60.00

b) State/UT level
(@ 3 lakhs per State/UT per
year)   -   5.00   5.00

c) National Level   -   1.00   1.00

                          Total (B)   -   66.00   66.00

C.   Research and Development

     Projects (Lump sum provision
     @ Rs. 1 crore per year)   -   5.00   5.00

D.   Programme Evaluation from
     External Agencies

     (Lump sum provision @ Rs.
     1 crore per year)   -   5.00   5.00

E.   Training and Staff Development

     (Lump sum provision @ Rs. 1 crore
     per year)   -   5.00   5.00

                  Total (A) to (E)   14.00   94.00   108.00
                  (Rs. in crores)

LIST OF MEMBERS OF THE 8TH PLAN WORKING GROUP ON STATISTICS, MONITORING AND EVALUATION (including ARTS, CULTURE AND YOUTH AFFAIRS AND SPORTS)

1. Shri S. Gopalan   Chairman
    Additional Secretary
    Department of Education
    Ministry of Human Resource Development
    Shastri Bhavan, New Delhi

2. Shri M.R. Kolhatkar   Member
    Adviser (Education)
    Planning Commission
    New Delhi

3. Professor Satya Bhushan   Member
    Director
    National Institute of Educational
    Planning And Administration
    New Delhi

4. Dr. U.K. Kohli   Member
    Adviser (M and I)
    Planning Commission
    Yojana Bhawan
    New Delhi

5. Shri Baldev Raj   Member
    Deputy Adviser
    Programme Evaluation Organisation
    Planning Commission
    New Delhi

6. Shri V. K. Rajagopalan   Member
    Director
    Central Statistical Organisational
    Deep Shikha Building, Rajindra Place
    New Delhi

7. Dr.(Mrs). D. M. De Rebello   Member
    Joint Secretary (Planning)
    Department Of Education
    Shastri Bhawan
    New Delhi

8. Shri. P.N.S. Yadav
    Deputy Director (Statistics)   Member
    Directorate of Education
    Allahabad
    Uttar Pradesh

9.	Shri A.K. Chattarjee Secretary to Government Department of Education Govt. of West Bengal Writer' Building Calcutta	Member
10.	Shri Sanjoy Das Gupta Deputy Secretary Department of Electronics New Delhi	Member
11.	Shri N. Rama Rao Assistant Registrar General Office of the R.G.I. 2-A, Man Singh Road New Delhi	Member
12.	Professor A. K. Dasgupta I.A.M.R., Indra Prastha Estate Ring Road New Delhi	Member
13.	Shri J. P.Vinayak Coordinator Statistical Division University Grants Commission 35-Ferozeshah Road New Delhi	Member
14.	Shri S. M. Vidwans Director Bureau of Economics and Statistics Govt. of Maharashtra Bombay	Member
15.	Shri M. Gangadharan Joint Director National Sample Survey Organisation Sardar Patel Bhavan New Delhi	Member
16.	Dr. H. S. Srivastava Professor, Head and Dean Planning, Programming Monitoring and Evaluation Division, N.C.E.R.T. New Delhi	Member

SPECIAL INVITEES

17. Shri Anil Bordia
    Education Secretary
    Ministry of Human Resource Development
    Shastri Bhavan
    New Delhi

18. Shri K. P. Lakshamana Rao
    Director, Department of Culture
    Ministry of Human Resource Development
    Shastri Bhavan,
    New Delhi

INVITEES

19. Dr. A. B. L. Srivastava
    Head, Department of Measurement and Evaluation,
    N.C.E.R.T., New Delhi

20. Shri V.V. Rao
    Principal Systems Analyst
    National Informatic Centre
    Lodhi Road
    New Delhi

21. Shri R.P. Upadhyay
    Deputy Adviser (M&I)
    Planning Commission
    New Delhi

22. V.P. Rastogi
    Deputy Director
    Registrar General of India's Office
    New Delhi

23. Shri V. D. Sharma
    Senior Research Officer (Education)
    Planning Commission
    New Delhi

24. Shri S. C. Seddey
    Deputy Director
    Planning, Monitoring and Stastistics
    Department of Education
    Shastri Bhavan
    New Delhi

25. Shri R. S. Mathur
    Additional Director
    Directorate of Adult Education
    2A, Man Singh Road
    New Delhi

26. Shri Y. Saidayya
    ~~~~~~ ~~~~~~~~ (~~~~~~~~)
    Department of Culture
    Ministry of HRD, Shastri Bhavan
    New Delhi

27. Shri Q. U. Khan
    Chief, Institute of Applied Man Power Research
    Indra Prastha Estate
    New Delhi-110002.

28. Shri M. M. Kapoor   Member-Convenor
    Sr. Fellow and Head
    SNS Unit
    National Institute of Educational
    Planning and Administration
    New Delhi 110016.

LIST OF PAPERS,REPORTS,STUDIES AND OTHER DOCUMENTS
CONSIDERED BY THE WORKING GROUP

REPORTS

- Report of the High Level Committee on Educational Statistics in India; Ministry of Education; 1982

- Technical Report on Monitoring, Evaluation and Management Information System for Non-formal Education; NIEPA; 1988

- Report of the Monitoring Group on Education; Planning Commission; 1978

- Report of the 7th Plan Working Group on Monitoring and Evaluation of Educational Programmes (1985-90); Planning Commission; 1984

- Report of the Task Forc on MIS and Evaluation in the context of National Literacy Mission; Edcil; 1988

- Report of the 'Technical Workshop on Monitoring and Evaluation of Educational Programmes with particular reference to Universalisation of Elementary Education; NIEPA; 1983

- Report of the Working Group on Monitoring and Information Systems in the Central Ministries and Central Public Sector Projects during the 7th Five Year Plan (1985-90); Planning Commission; 1984.

- Report of the Working Group on Monitoring and Information Systems at State and District Levels during 7th Five Year Plan (1985-90); Planning Commission; 1984

STUDIES/STATUS PAPERS/DOCUMENTS

- Computerisation of NFE in Pilot Districts : NFE/COPE Project, Ministry of HRD; 1988

- DISNIC - DISPLAN : District Planning Information Systems, National Informatic Centre; 1988

- Information Development and Resource Agencies (IDARA's) Supportive Services to Nehru Yuvak Kendras; Ministry of HRD ; 1988

- National Technical Manpower Information System : Genesis, Structure, Organisation and Programme of Work; IAMR; 1987

- Monitoring and Evaluation of Adult Education Programmes by R.S.Mathur; Directorate of Adult Education, Ministry of HRD; 1998.

- Present System of Statistics of University Education in India : A Status Paper by J.P. Vinayak; UGC; 1989

- Proformae for Creation of Data Bases at District Level for Education Sector; NIC; 1989

- Status Paper on Educational Statistics in India by S.C. Seddy; Ministry of HRD; 1988

- Study on Organisational set-up and process of Educational Planning, Statistics and Monitoring in various States and UTs by M.M Kapoor; NIEPA; 1984

- Quarterly Monitoring of Minimum Needs Programme : Education - Status Paper by V.D.Sharma, Planning Commission ; 1988

- Universalisaiton of Elementary Education : Planning at Micro Level - Guidelines; NIEPA;1988

- Agenda Papers for the 13th Meeting of the Standing Committee on Educational Statistics; Ministry of HRD; 1988

- Implementation of National Policy on Education - 1986 : A Progress Report as on November, 1988 : Ministry of Human Resource Development; 1988

- Management Information System and Evaluation for National Literacy Mission - White Paper; Directorate of Education; Ministry of HRD; 1987

- National Policy on Education : 1986; Ministry of HRD, 1986

- National Policy on Education (1986) : Programme of Action; Ministry of HRD; 1986

- NICNET - Ministry of HRD - Study by NIC; National Informatic Centre, 1988.

- Pilot Project on Computerisation on Educational Statistics in UP; Ministry of Education and Culture 1986

- A Note on Monitoring of Schemes/Programmes of Technical Education, Ministry of HRD, 1988.

- A Statistical Profile of Cultural Institutions; Department of Culture, Ministry of HRD; 1988

- Guidelines for Furnishing Information in the Monitoring Proformae on Educational Development of Scheduled Castes and Scheduled Tribes; Ministry of HRD; 1988

- Integrated Information System for Educational Management : A suggested Model for India by M.M.Kapoor; International Institute of Educational Planning (UNESCO), Paris, 1982.

- Monitoring of Progress Towards Universalisation of Elementary Education; Ministry of HRD, 1988

- Monitoring System for Vocational Education; Ministry of HRD; 1988

- Monitoring System for Centrally Sponsored Scheme of Teacher Education; Ministry of HRD; 1988

- National Service Scheme : Supervision and Monitoring; Ministry of HRD; 1988

- National Technical Manpower Information Systems; IAMR 1988

LIST OF SELECTED SCHEMES BEING MONITORED BY THE DEPARTMENT OF EDUCATION, MINISTRY OF HUMAN RESOURCE DEVELOPMENT UNDER NATIONAL POLICY ON EDUCATION (1986)

A.   Elementary Education

1.   Operation Blackboard
2.   Non-formal Education
3.   Teacher Education

B.   Secondary Education

4.   Vocationalisation of Education
5.   Educational Technology
6.   Computer Education in Schools
7.   Strengthening of Science Teaching in Schools
8.   Environmental Orientation to School Education
9.   Contents and Processes of School Education
10. Establishment and Management of Navodaya Vidyalayas

C.   Higher Education

11. Indira Gandhi National Open University
12. Establishment of Central University in Assam
13. Central University in Nagaland
14. Rural Institutes/Universities
15. National Testing Service
16. National Council of Higher Education
17. Revision of Pay Scales of Teachers in Universities/College

D.   Technical Education

18. All India Council of Technical Education
19. Modernisation and Removal of Obsolescence
20. Thrust Areas in Technical Education
21. Indian Institutes of Technology
22. Regional Institutes of Technology
23. Longowal Institute of Engineering and Technology
24. Promotion of Technical Education for Women

E.   Adult Education

25. National Literacy Mission

F.   Other Areas

26. Promotion and Development of Languages
27. Promoting Equality of Opportunities for SC/ST & Educationally Backward Minorities
28. Education for Women Equality
29. Border Area Development Programmes
30. Educational Management

DATA BASED PROPOSED FOR EDUCATION SECTOR UNDER DISNIC BY NIC

SOURCES : 1. DIRECTORATE OF PUBLIC INSTRUCTION
          2. UNIVERSITY

| | LEVEL | | | | |
| Parameters | D | E | T | L | V |

1. Educational Instiutions (number)
   1. School
        i)   Nursery
        ii) Primary
        iii) Secondary
   2. Engineering & Technology
   3. Medical
   4. Technical
   5. Industrial
   6. Arts and Crafts
   7. Teachers Training
   8. Music
   9. Dancing
   10. Other fine arts

2. Distance from the nearest Institute
   1. School
        i)   Nursery
        ii) Primary
        iii) Secondary
   2. Engineering & Technology
   3. Medical
   4. Technical
   5. Industrial
   6. Arts & Culture
   7. Teachers Training
   8. Music
   9. Dancing
   10. Other Fine Arts

3. Type-wsie details
   1. Ownership
       i. Government
      ii. Private aided
             a. Aided
             b. Un-aided

2. Number of Teachers
     i. Trained
    ii. Untrained

3. Number of students
   i. Males
   ii. Females
   iii. SCs
   iv. STs

4. Scholarships (amount & total no.)
   i. Males
   ii. Females
   iii. SCs
   iv. STs

D - District,   B - Block,
T - Taluk,   L - Panchayat,
V - Village