

Agenda Item No.XI

**CONVERGENCE OF COPE AND COMPUTERISATION OF
EDUCATIONAL STATISTICS**

1. INTRODUCTION

1.1 There are two issues for consideration :

- . reducing the enormous timelags in the compilation and publication of educational statistics.
- . modifying the existing system of the educational statistics so that it better facilitates educational planning particularly planning for UEE.

2. DELAYS IN COMPILATION OF EDUCATIONAL STATISTICS

2.1 Under the existing system data is collected from individual institutions by the States and Union Territories; compilation and publication is done by Statistics Division of the Department of Education, Ministry of Human Resource Development. Broadly speaking, the publications brought out by the Statistics Division fall into the following four categories :

- i) data on number of institutions, enrolment and teachers.
- ii) financial data
- iii) examination results
- iv) data relating to SC/ST

2.2 The basic input forms and the related publications brought out by the Ministry are classified in Table-I. This Table also lists out the years for which the full validated data is available from the States/Union Territories and the years for which the publications have been brought out.

2.3 Thinking on computerisation of educational statistics began at the beginning of VII Plan in order to reduce time lags in collection of data. In 1987-88 an experimental project was undertaken to computerise educational statistics in Uttar Pradesh for the year 1985-86. The reduction in time lag by more than four years encouraged the formulation of a Central Plan scheme to computerise educational statistics in all the States. The scheme of computerisation of educational statistics was started in collaboration with NIC in 1989. The scheme covered numerical data only. Originally started in nine States, the scheme now covers all the States and Union Territories. However, it is noticed that there are still some bottlenecks which impede the smooth flow of the data. Under the present computerised scheme, data in regard to primary schools and upper primary schools is collected in S-1 and S-2 forms respectively. These are manually compiled at the Block level and the data sent to the State for computerisation in form 'B'. On the other hand, the data in regard to secondary and higher secondary schools is collected in forms S-3 at the district level and sent after verification at the State level for computerisation. The manual compilation at the block level continues to be a major bottleneck and is thwarting the benefits of computerisation.

2.4 Apart from the systemic deficiency in the present scheme of computerisation, the main problem is the low priority and esteem attached to educational statistical works. Functionaries of the Education Department do not 'own' statistics; compilation and collection of statistics is considered to be an activity isolated from educational planning and administration organised by functionaries who do not belong to the educational system. Another impediment is the lack of a focal point to effect coordination among the different Directorates in the Education Department which have to supply the data. The low priority attached to the statistical work leads to delays in printing of forms and to lack of direction and sense of purpose. Inadequate training is another bottleneck.

2.5 Secretaries and Directors are requested to resolve the factors mentioned in para 2.4, so that collection, compilation and publication are timely and provide useful inputs to educational planning and administration.

2.6 The maximum timelag in publication is the financial data. The latest available publication is for the year 1983-84. Consequently we have little idea about the financing of education at the institutional level. Given the reluctance of individual institutions to provide the information, it seems preferable to go in for a sample survey rather than to continue with the present system of collection in a census mode. Education Secretaries may kindly offer their views.

3. EDUCATIONAL STATISTICS AND PLANNING FOR UEE

3.1 It is axiomatic that UEE has three dimensions; enrolment, retention and achievement. The data of enrolment as is now collected furnishes the gross enrolment of students in primary and upper primary schools without reference to the age specific group of 6-11 and 11-14 years. Consequently, it is difficult to evaluate how far we have progressed in relation to obligation cast under Article 45 of the Constitution.

3.2 In 1986, the Ministry initiated another project called COPE (Computerised Planning for Education) for collection through a computerised system of the data necessary for planning and implementation of UEE. The data base in this project was larger than that of the S-1 and S-2 forms used so far for the collection of educational statistics all over the country in respect of primary and upper-primary schools. COPE data base can provide, age-wise and class-wise enrolment statistics as well as data required for management at various levels such as administrative details regarding teachers. The overall idea was to provide at the district level the data necessary for the planning of UEE as well as management of institutions on a more rational basis. The COPE database and software have so far been introduced in some districts of Madhya Pradesh, Bihar and Rajasthan.

3.3 It is considered expedient to merge the COPE system with the system for collection of educational statistics so that duplication is avoided. After a detailed examination of the

existing forms S-1, S-2 and S-3 as well as COPE form, a composite form has been evolved (enclosed). The composite form incorporates the essential features of both the systems.

3.4 The following is the action plan for the merger :

- i) The existing forms S-1, S-2 and S-3 will be replaced by the new composite form.
- ii) The new form will be introduced in 1992-93 for collection of data (with reference date as 30.9.1992).
- iii) The new form would cover all type of schools.
- iv) Progressively the input forms would be consolidated on computers at District level by the staff belonging to Education Department. The location of a PC/XT in the DEO's office where the data would be processed would readily provide to the DEO latest data for educational planning and administration.
- v) Where the DEO's office is located in the same town as that of DIET, the PC/XT could be available to the DEO's office under the DIET scheme. In districts where DIETs have not started, advance grant for purchase of PC/XTs will be released from the DIET scheme. Where the DEO's offices are located in towns other than that of DIET, the PC/XT will be provided through a scheme being formulated by EE Bureau.
- vi) Inputing of data will be done by the block level functionaries who will be adequately trained.

- vii) Over a period of three years all districts in the country would be covered by computerisation. Phasing in each State would depend upon the capacity and the willingness of the State Government to introduce the scheme. The size of the State will be a factor in deciding the phasing.
- viii) Once the phasing is decided in consultation with the State/UT Government, the training of the functionaries would be organised in association with Electronics and Data Processing Agencies, preferably State Government Electronics/Technological Corporations.
- ix) The transmission of the consolidated data from the district level to the State level and from the State level to the national level would be done through the NICNET.
- x) The overall responsibility for organising the district level computerisation will rest with the State Government. At the State headquarters, a team of State Government officers will be designated for implementation of the scheme vested with the responsibility and power to effect coordination among different Directorates and districts. A PC/XT will be provided by the Ministry to each State Education Department after the State level team has been created and an understanding reached with the State for the phasing of the Districts and the training programme.

- xi) In districts not covered by computersation, the present system of data collection and compilation will continue i.e. forms not computerised at the district level by education staff would be entered into the computer by hiring a data entry agency for the work.

3.5 Secretaries and Directors are requested to offer their comments on :

- i) the appropriateness of composite form;
- ii) the system of collection and compilation proposed;
- iii) any alternatives and suggestions.

TABLE- I

1. Type of Data	Numerical General SC/ST		Financial (Income & Expdt. of Institutions)	Examination Results	Remarks
2. Input Forms	ES(I)	ES(IV)	ES(II)	ES(III)	
	or				
	S1,S2,S3				
3. Name of the Publication	Education in India (Vol.-I)	Education in India (Vol.-II)	Education in India (Vol.-III)		Selected Educational Statistics has been published for the year-1990-91 containing important Provisional Educational Statistics.
4. Latest year for which complete validated data is available in the Ministry.	1987-88	1987-88	1984-85	1986-87	
5. Year for which Latest Publication is available	1986-87	1984-85	1983-84	1985-86	* Report available as * Computerised Print-out.

Notes : 1. ES Series forms are State-level forms invogue before introduction of Computerisation Scheme.
-- Compilation /Consolidation done manually.

2. S Series forms are institution -level forms introduced under Computerisation Scheme.
--- S1 - Primary School Proforma }
S2 - Middle School Proforma } Consolidation at Block level done manually.
S3 - High\Hr.Secondary School Proforma - Processed completely by Computerisation.

3. Numerical data Includes Educational statistics of Institutions,Enrolment and Teachers.

COMPUTERISATION OF EDUCATIONAL STATISTICS

PROFORMA FOR COLLECTION OF DATA

SCHOOL LEVEL

GENERAL INSTRUCTIONS -

Please read the following instructions very carefully before you start filling this format.

1. Please fill in correct and authentic data. All the figures-filled in should be in English.
2. Do Not scribble on the Data Capture Format. Please write all the figures neatly in the space provided in front of every information asked. The Principal is requested to use the space provided on page 6 for suggestions and greivences.
3. Please write the appropriate code wherever asked for. For example, if the school is in a rural area, do not write 'Rural', instead write '1' in the space provided against the column where this information is asked. For your covenience codes for the required information are given either within the column or at the bottom of the column.
4. Please do not write anything extra than what is required.
5. Whenever the Principal comes across a column which is either not applicable to his school or for some reasons does not have the required data, he/she should leave it blank. Please do not write anything in that column.

WHAT IS A SCHOOL CODE ?

As you know most of the schools in the district have similar names. Therefore to differentiate between these schools, every-school is given a unique code by the computer. This makes it easy to identify a particular school by the district education staff.

INSTRUCTIONS TO FILL THE DATA CAPTURE FORMAT

GENERAL INFORMATION :- All the information supplied in this form should be as on 30th of September of the year.

1. The Principal will have to fill this form only once a year. Please fill the data of the last year's result on page 4. Only Equipment Details will have to be supplied on a quarterly basis. For this purpose page 10-12 have a perforated lining. The principal is requested to retain these sheets and send the quarterly information to the district at the end of the first week of each quarter i.e 7th of January, 7th of April & 7th of July.
2. The information sent by the School Principal through this Format will be entered into the District Computer and all the decisions shall be taken on the basis of the same information.
3. This information is non-threatening in every respect and shall be used to improve the educational standards in your district.

The following are the contents of the Data Capture Format :-

- Page 1 :- General Details Of The School.
- Page 2-3 :- Teachers & Non-Teachers Details.
- Page 4 :- Classwise Previous Year's Result.
- Page 5 :- Agewise Classwise Enrolment Details (All Students).
- Page 6 :- Agewise Classwise Enrolment Details -(SC Students).
- Page 7 :- Agewise Classwise Enrolment Details (ST Students).
- Page 8 :- Facility Details
- Page 9-12 :- Itemwise Equipment Details (One For Each Quarter)

Page 1 - GENERAL DETAILS

- a) Total Boys/Girls - Please write the total strength of boys and girls present in the school. For example if a school is a middle school then write the strength of class 1 to class 8. Or, if a school is a higher secondary school then write the total strength of boys and girls upto class 12th.
- b) Date of Starting - Here the principal will have to write the date of establishment of school. For example if a school has started on th 7th of September 1954 the date will be written as 07/09/54.
- c) Teachers In Position - Here the principal is required to fill the total no. of permanent and temporary teachers. Remember that the total should match with the number of teachers listed in the Teachers' details page.

Page 2-3 - TEACHERS DETAILS

Here the Principal will have to fill in the details of the Teaching and Non-Teaching Staff irrespective of whether the staff is permanent or temporary.

Page 4 - PREVIOUS YEAR'S RESULT

The principal will have to feed in the previous years results. Here Total Students column will have the data as of on 30th of September in the previous academic session.

Page 5-7 - STUDENTS ENROLMENT (All, SC, ST)

These pages are self explanatory. The Principal will have to be very careful while filling these pages. Please note that only Higher Secondary Schools are supposed to fill the Streamwise Details in class 11th and 12th in the last four rows (i.e Arts, Science, Commerce & Vocational Studies).

Page 8 - FACILITIES DETAILS

This page is self explanatory.

Page 9-12 - EQUIPMENT DETAILS

Please mention figures only. Only complete sets and items in usable condition may be considered as available.

HOW IS A SCHOOL CODE GENERATED

Lets take an example :- There is a school named Govt. Primary School situated in Village 'SERSA', Block "DATIA". The school code given by the computer is '1102303'. Now Lets see what this means.

SCHOOL CODE - 1102303

Here '1102303' stands for the block Datia which has been given the Block Code as 11.

'1102303' stands for the Village 'Sersa' in block Datia which has been given the Village Code as 11023.

'1102303' stands for the School in Village 'Sersa', block Datia. This is how a school gets identified from its school code. Likewise all the school codes in block Datia will start from 11. Principals are requested to remember their school code at all times. This School code will be given to you by your respective B.E.Os/A.D.I.Ss/S.D.Is once the data of your block is Initialised at the District computer.

Note - In the First year, please do not write anything in the space provided for the School Code.

School Database

Year 19__/__/__

SCHOOL CODE

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DISTRICT CODE

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SCHOOL NAME			
SCHOOL ADDRESS			
BLOCK NAME			
VILLAGE NAME			
RURAL/URBAN			
NAME OF PANCHAYAT			
PRIMARY / (1)	MIDDLE / (2)	SECONDARY / (3)	HIGHER SECONDARY (4) <input type="checkbox"/>
BOYS / (1)	GIRLS / (2)	CO-ED (3)	<input type="checkbox"/>
TOTAL BOYS	<input type="text"/>	TOTAL GIRLS	<input type="text"/>

DATE OF ESTABLISHMENT OF SCHOOL					<input type="text"/>	<input type="text"/>	<input type="text"/>
DIST. OF SCHOOL FROM BLOCK HEAD QUARTERS (K.M.)							
PRIVATE UNAIDED (1)	PRIVATE AIDED (2)	CENTRAL GOVT. (3)	STATE GOVT. (4)	LOCAL BODY (5)	<input type="checkbox"/>		
SCHOOL TIMINGS-SUMMER							
SCHOOL TIMINGS-WINTER							
UNDER OPERATION BLACKBOARD							
NO (1)	PHASE 1 (2)	PHASE 2 (3)	PHASE 3 (4)	PHASE 4 (5)	<input type="checkbox"/>		
CATEGORY		NO. SANCTIONED		NO. IN POSITION			
TEACHER							
NON TEACHER							

BLOCK VERIFICATION OFFICER
SIGNATURE

PRINCIPAL/HEADMASTER'S NAME
SIGNATURE

TEACHERS & NON-TEACHERS DETAILS

DISTRICT CODE

SCHOOL CODE

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S.NO.	NAME	CATE- GORY*	PERMA- NENT=1 TEMP- ORARY=2	SEX M=1 F=2	1=MARRIED 2=UNMARR- IED	SPOUSE IN GOVT. SERVICE	DATE OF BIRTH	FATHER'S NAME	CASTE*	ADDRESS	RURAL EXPER- IENCE (NO. OF YEARS)	DIST. OF RESIDENCE FROM SCHOOL (K.M.)
1	2	3	4	5	6	7	8	9	10	11	12	13

* 1. PRINCIPAL
2. TEACHER
3. NON-TEACHER

1 = YES
2 = NO

* 1. SCHEDULED CASTE
2. SCHEDULED TRIBE
3. OTHERS

FACILITIES

DISTRICT CODE

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SCHOOL CODE

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1. CONDITION OF BUILDING (KUCCHA/PUCCA/PARTIALLY PUCCA/NO BUILDING) (1/2/3/4)		
2. STATUS OF BUILDING (PRIVATE/RENTED/DONATED) (1/2/3)		
3. NO. OF CLASSROOMS		
4. NO. OF OTHER ROOMS (EXCEPT TOILETS)		
5. BOYS TOILET	YES	NO
6. GIRLS TOILET	YES	NO
7. VERANDAH	YES	NO
8. PLAYGROUND	YES	NO
9. BOUNDARY WALL	YES	NO
10. DRINKING WATER	YES	NO
11. ELECTRICITY	YES	NO
12. SCIENCE LABORATORY	YES	NO

Please tick (✓)
appropriate column.

PROBLEMS AND SUGGESTIONS:

THIS COLUMN TO BE FILLED IN ONLY BY SCHOOL PRINCIPAL/HEAD MASTER

QUARTER-1

EQUIPMENT DETAILS (FILL IN NUMBERS ONLY)

SCHOOL CODE

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DISTRICT CODE

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S.NO.	ITEM DETAILS	NUMBER AVAILABLE
1.	BLACK BOARD	
2.	CHALK (NO. OF BOXES)	
3.	SYLLABUS	
4.	PRIMARY SCIENCE KIT	
5.	TEACHERS GUIDES	
6.	MAPS-DISTT./STATE/COUNTRY/WORLD (NO. OF SETS)	
7.	EDUCATIONAL CHARTS (NO. OF SETS)	
8.	LIBRARY BOOKS	
9.	GAMES EQUIPMENT	
10.	REFERENCE BOOKS (FOR TEACHERS)	
11.	MINI TOOL KIT (NO. OF SETS)	
12.	MATHS KIT	
13.	CHILDREN'S BOOKS	
14.	CHAIR AND TABLE FOR TEACHERS	
15.	MATS FOR CHILDREN	
16.	CONTINGENCY FUNDS	
17.	OTHERS	